

<110> Ruben et al.

<120> 26 Human secreted proteins

<130> PZ040P1

<140> Unassigned

<141> 2000-12-01

<150> PCT/US00/15187

<151> 2000-06-02

<150> 60/137,725

<151> 1999-06-07

<160> 190

<170> PatentIn Ver. 2.0

<210> 1

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1

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| gggatccgga | gccccaaatct | tctgacaaaa | ctcacacatg | cccaccgtgc | ccagcacctg | 60 |
| aattcgaggg | tgcaccgtca | gtcttctct | tcccccaaa | acccaaggac | accctcatga | 120 |
| tctcccggac | tcctgaggtc | acatgcgtgg | tggtggacgt | aagccacgaa | gaccctgagg | 180 |
| tcaagttcaa | ctggtacgtg | gacggcgtgg | aggtgcataa | tgccaagaca | aagccgcggg | 240 |
| aggagcagta | caacagcacg | taccgtgtgg | tcagcgtcct | caccgtcctg | caccaggact | 300 |
| ggctgaatgg | caaggagtac | aagtgcgaag | tctccaacaa | agccctccca | acccccatcg | 360 |
| agaaaaccat | ctccaaagcc | aaagggcagc | cccgagaacc | acaggtgtac | accctgcccc | 420 |
| catcccggga | tgagctgacc | aagaaccagg | tcagcctgac | ctgcctggtc | aaaggcttct | 480 |
| atccaagcga | catcgccgtg | gagtgggaga | gcaatgggca | gccggagaac | aactacaaga | 540 |
| ccacgcctcc | cgtgctggac | tccgacggct | ccttcttcct | ctacagcaag | ctcaccgtgg | 600 |
| acaagagcag | gtggcagcag | gggaacgtct | tctcatgctc | cgtgatgcat | gaggctctgc | 660 |
| acaaccacta | cacgcagaag | agcctctccc | tgtctccggg | taaatgagtg | cgacggccgc | 720 |
| gactctagag | gat | | | | | 733 |

<210> 2

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> Site

<222> (3)

<223> Xaa equals any of the twenty naturally occurring L-amino acids

<400> 2

Trp Ser Xaa Trp Ser

1

5

<210> 3

<211> 86

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<212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic sequence with 4 tandem copies of the GAS binding site found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18 nucleotides complementary to the SV40 early promoter, and a Xho I restriction site.

<400> 3
 gcgcctcgcg atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60
 cccgaaatat ctgccatctc aattag 86

<210> 4
 <211> 27
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic sequence complementary to the SV40 promoter; includes a Hind III restriction site.

<400> 4
 gcggcaagct ttttgcaaag cctagggc 27

<210> 5
 <211> 271
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Protein_Bind
 <223> Synthetic promoter for use in biological assays; includes GAS binding sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)).

<400> 5
 ctgcgagattt ccccgaaatc tagatttccc cgaaatgatt tccccgaaat gatttccccg 60
 aaatatctgc catctcaatt agtcagcaac catagtcccc cccctaactc cgcccatccc 120
 gccctaact ccgcccagtt ccgcccattc tccgcccatt ggctgactaa ttttttttat 180
 ttatgcagag gccgaggccg cctcggcctc tgagctattc cagaagtagt gaggaggctt 240
 ttttggaggc ctaggctttt gcaaaaagct t 271

<210> 6
 <211> 32
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I restriction site.

<400> 6
 gcgctcgcg gatgacagcg atagaacccc gg 32

007027-120100

<210> 7
 <211> 31
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III restriction site.

<400> 7
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<210> 8
 <211> 12
 <212> DNA
 <213> Homo sapiens

<400> 8
 ggggactttc cc 12

<210> 9
 <211> 73
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Primer_Bind
 <223> Synthetic primer with 4 tandem copies of the NF-KB binding site (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40 early promoter sequence, and a XhoI restriction site.

<400> 9
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 ccatctcaat tag 73

<210> 10
 <211> 256
 <212> DNA
 <213> Artificial Sequence
 <220>
 <221> Protein_Bind
 <223> Synthetic promoter for use in biological assays; includes NF-KB binding sites.

<400> 10
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 caattagtcg gcaaccatag tccgcccct aactccgcc atcccgcgcc taactccgcc 120
 cagttccgcc cattctccgc cccatggctg actaattttt tttatttatg cagaggccga 180
 ggccgcctcg gcctctgagc tattccagaa gtagtgagga ggcttttttg gaggcctagg 240
 cttttgcaaa agcctt 256

<210> 11
 <211> 2318
 <212> DNA

00736643 120400

<213> Homo sapiens

<400> 11

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| aaggccagtg | cccagcttga | aggttctgtc | accttttgca | gtgggtccaaa | tgagaaaaaaa | 120 |
| gtggaaaatg | ggaggcatga | aatacatctt | ttcgttggtg | ttctttcttt | tgctagaagg | 180 |
| aggcaaaaaca | gagcaagtaa | aacattcaga | gacatattgc | atgtttcaag | acaagaagta | 240 |
| cagagtgggt | gagagatggc | atccttacct | ggaaccttat | gggttggttt | actgcgtgaa | 300 |
| ctgcatctgc | tcagagaatg | ggaatgtgct | ttgcagccga | gtcagatgtc | caaattgtca | 360 |
| ttgcctttct | cctgtgcata | ttcctcatct | gtgctgccct | cgtgcgccag | aagactcctt | 420 |
| acccccagtg | aacaataagg | tgaccagcaa | gtcttgcgag | tacaatggga | caacttacca | 480 |
| acatggagag | ctgttcgtag | ctgaagggct | ctttcagaat | cggcaaccca | atcaatgcac | 540 |
| ccagtgcagc | tgttcggagg | gaaacgtgta | ttgtgggtctc | aagacttgcc | ccaaattaac | 600 |
| ctgtgccttc | ccagtctctg | ttccagattc | ctgctgccgg | gtatgcagag | gagatggaga | 660 |
| actgtcatgg | gaacattctg | atggtgatat | cttcggcaa | cctgccaaca | gagaagcaag | 720 |
| acattcttac | caccgtctct | actatgacct | tccaccaagc | cgacaggctg | gaggtctgtc | 780 |
| ccgctttcct | ggggccagaa | gtcaccgggg | agctcttatg | gattcccagc | aagcatcagg | 840 |
| aaccattgtg | caaattgtca | tcaataacaa | acacaagcat | ggacaagtgt | gtgtttccaa | 900 |
| tggaaagacc | tattctcatg | gcgagtcctg | gcacccaaac | ctccggggcat | ttggcattgt | 960 |
| ggagtgtgtg | ctatgtactt | gtaatgtcac | caagcaagag | tgtaagaaaa | tccactgccc | 1020 |
| caatcgatac | ccctgcaagt | atcctcaaaa | aatagacgga | aaatgctgca | aggtgtgtcc | 1080 |
| agaagaactt | ccaggccaaa | gctttgacaa | taaaggctac | ttctgcgggg | aagaaacgat | 1140 |
| gcctgtgtat | gagtcctgtat | tcatggagga | tggggagaca | accagaaaaa | tagcactgga | 1200 |
| gactgagaga | ccacctcagg | tagaggtcca | cgtttggact | attcgaaagg | gcattctcca | 1260 |
| gcacttccat | attgagaaga | tctccaagag | gatgtttgag | gagcttcctc | acttcaagct | 1320 |
| ggtgaccaga | acaaccctga | gccagtggaa | gatcttcacc | gaaggagaag | ctcagatcag | 1380 |
| ccagatgtgt | tcaagtcgtg | tatgcagaac | agagcttgaa | gatttagtca | aggttttgta | 1440 |
| cctggagaga | tctgaaaagg | gccactgtta | ggcaagacag | acagtattgg | atagggtaaa | 1500 |
| gcaagaaaac | tcaagctgca | gctggactgc | aggcttattt | tgcttaagtc | aacagtgcce | 1560 |
| taaaactcca | aactcaaatt | cagtcaatta | ttcacgccat | gcacagcata | atttgctcct | 1620 |
| ttgtgtgtgt | gtgtgtgtgt | gtgtgtgtgt | gtgtggtaaa | ggggggaagg | tgttatgcgg | 1680 |
| ctgctccctc | cgtcccagag | gtggcagtg | ttccataatg | tgagactag | taactagatc | 1740 |
| ctaaggcaaa | gaggtgtttc | tccttctgga | tgattcatcc | caaagccttc | ccaccaggt | 1800 |
| gttctctgaa | agcttagcct | taagagaaca | cgcagagagt | ttccctagat | atactcctgc | 1860 |
| ctccagggtg | tgggacacac | ctttgcaaaa | tgctgtggga | agcaggagct | ggggagctgt | 1920 |
| gttaagtcaa | agttagaaacc | ctccagtgtt | tggtgttggt | tagagaatag | gacataggg | 1980 |
| aaagaggcca | agctgcctgt | agttagtga | gaagaatgga | tgtggttctt | cttgtgtatt | 2040 |
| tatttgtatc | ataaacactt | ggaacaacaa | agaccataag | catcatttag | cagttgtagc | 2100 |
| cattttctag | ttaaactcatg | taaacaagta | agagtaacat | aacagtatta | ccctttccta | 2160 |
| gttctcacag | gacatgtacc | taattatgg | acttatttat | gtagtcactg | tatttctgga | 2220 |
| tttttaaaatt | aataaaaaag | ttaattttga | aaaatcaaaa | aaaaaaaaaa | aaaagtcgac | 2280 |
| cggcmgcgaa | tttagtagta | gtagtagtag | tagtaggc | | | 2318 |

<210> 12

<211> 1923

<212> DNA

<213> Homo sapiens

<400> 12

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| atagctccat | ccagcctgag | aaacaagccg | ggtggctgag | ccaggctgtg | cacggagtcc | 120 |
| tgacggggcc | aacagaccca | tgtgtcatcc | agagacctcc | cctggccggg | ggcatctcct | 180 |
| ggctgtgtct | ctggccctcc | ttggcaccgc | ctgggcagag | gtgtggccac | cccagctgca | 240 |
| ggagcaggct | ccgatggccg | gagccctgaa | caggaaggag | agtttcttgc | tcctctccct | 300 |
| gcacaaccgc | ctgcgcagct | gggtccagcc | ccctgcggct | gacatgcgga | ggctggactg | 360 |
| gagtgacagc | ctggcccaac | tggtcgaagc | cagggcagcc | ctctgtggaa | tcccaacccc | 420 |
| gagcctggcg | tccggcctgt | ggcgcaccct | gcaagtgggc | tggaaacatgc | agctgctgcc | 480 |

| | | | | | | |
|-------------|-------------|-------------|------------|------------|------------|------|
| cgcggggcttg | gcgtccctttg | ttgaagtggg | cagcctatgg | tttgcagagg | ggcagcggtg | 540 |
| cagccacgcg | gcaggagagt | gtgctcgcaa | cgccacctgc | acccactaca | cgagctcgt | 600 |
| gtggggccacc | tcaagccagc | tgggctgtgg | gcgccacctg | tgctctgcag | gccaggcagc | 660 |
| gatagaagcc | tttgtctgtg | cctactcccc | cggaggcaac | tgggaggtca | acgggaagac | 720 |
| aatcatcccc | tataagaagg | gtgcctgggt | ttcgtctctg | acagccagtg | tctcaggctg | 780 |
| cttcaaagcc | tgggaccatg | cagggggggt | ctgtgaggtc | cccaggaatc | cttgtcgcgt | 840 |
| gagctgccag | aaccatggac | gtctcaacat | cagcacctgc | cactgccact | gtccccctgg | 900 |
| ctacacgggc | agatactgcc | aagtgaggtg | cagcctgcag | tgtgtgcacg | gccggttccg | 960 |
| ggaggaggag | tgctcgtgcg | tctgtgacat | cggctacggg | ggagcccagt | gtgccaccaa | 1020 |
| ggtgcatttt | cccttccaca | cctgtgacct | gaggatcgac | ggagactgct | tcatggtgtc | 1080 |
| ttcagaggca | gacacctatt | acagagccag | gatgaaatgt | cagaggaaag | gcggggtgct | 1140 |
| ggcccagatc | aagagccaga | aagtgcagga | catcctcgcc | ttctatctgg | gccgcctgga | 1200 |
| gaccaccaac | gaggtgattg | acagtgactt | cgagaccagg | aacttctgga | tggggtcac | 1260 |
| ctacaagacc | gccaaggact | ccttccgctg | ggccacaggg | gagcaccagg | ccttcaccag | 1320 |
| ttttgccttt | gggcagcctg | acaaccacgg | gtttggcaac | tgctgggagc | tgcaggcttc | 1380 |
| agctgccttc | aactggaaca | accagcgctg | caaaacccga | aaccgttaca | tctgccagtt | 1440 |
| tgcccaggag | cacatctccc | gggtggggccc | agggtcctga | ggcctgacca | catggctccc | 1500 |
| tgcctgccc | tgggagcacc | ggctctgctt | acctgtccgc | ccacctgtct | ggaacaagg | 1560 |
| ccagggttaag | accacatgcc | tcatgtccaa | agaggtctca | gaccttgac | aatgccagaa | 1620 |
| gttgggcaga | gagaggcagg | gaggccagtg | agggccaggg | agtgagtgtt | agaagaagct | 1680 |
| ggggcccttc | gcctgctttt | gattgggaag | atgggcttca | attagatggc | gaaggagagg | 1740 |
| acaccgccag | tgggtccaaa | aggctgctct | cttccacctg | gccagaccc | tgtggggcag | 1800 |
| cggagcttcc | ctgtggcatg | aacccacag | ggtattaaat | tatgaatcag | ctgaaaaaaa | 1860 |
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| aaa | | | | | | 1923 |

<210> 13

<211> 4720

<212> DNA

<213> Homo sapiens

<400> 13

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| tctgttccct | cctgagcctg | agccccctac | cttcctgacc | ccatgaagca | cacactggct | 120 |
| ctgctggctc | ccctgctggg | cctgggacctg | gggctggccc | tgagtcagct | ggctgcaggg | 180 |
| gccacagact | gcaagttcct | tggcccggca | gagcacctga | cattcacccc | agcagccagg | 240 |
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| gtgcgcgct | tcctctcggt | ggtgcagctc | aatcccttcc | cttcagagtt | ggtaaaaggcc | 360 |
| ctactgaatg | agctggcctc | cgtgaagggtg | aatgaggtgg | tgcggtacga | ggcgggttac | 420 |
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| gagctgcagg | ccgtggcaca | gcaattctcc | ctgccccagg | agcaagtctc | agaggagctg | 780 |
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| cccttgcttg | cggccgtggg | cagtttgggc | caggtcctgc | aggtctccgt | gcaccacctg | 900 |
| caaaccttga | atgctacagt | ggtagagctg | caggccgggc | agcaggacct | ggagccagcc | 960 |
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| aacgatgttg | tgatgtaaaa | aaaaaaaaaa | aaaaaaaagg | gcggccgctc | tagaggatcc | 1560 |
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| tgagaatcag | agagcataat | cttcttacgg | gcccgatgatt | tattaacgtg | gcttaatctg | 120 |
| aagggttctca | gtcaaattct | ttgtgatcta | ctgattgtgg | gggcatggca | aggtttgctt | 180 |
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| tcccactacg | gcctgaccaa | agataggaag | aggcgctcac | aagatggctg | tccagacggc | 420 |
| tgtgcgagcc | tcacagccac | ggctccctcc | ccagagggtt | ctgcagctgc | caccatctcc | 480 |
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<213> Homo sapiens

<400> 17

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 aaaaaaaaaa aaaaaaaaaa a 2601

<210> 18
 <211> 2229
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (570)
 <223> n equals a,t,g, or c

<400> 18
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ctggctggta tgattttaat gataactggc gtattggttc gcaactggaa cgcctctctc 120
 accgcgttcc attacgggca atgaaaaatg gtgttacagg caacagtgtt caggcttatg 180
 ttcgctggta tcaaaatgag cggcgtaagt acgggtgtct ctgggctttc actgattttt 240
 ccgacagtaa ccagcgtcat gaagtctcac ttgagggtca ggaacgcac tggtcttcac 300
 catatttgat tgtcgatttc ctaccagtc tgtattacga acaaaatata gaacacgata 360
 cccatacta caaccctata aaaacgttcg atattgttcc ggcatttgag gcaagccatt 420
 tgttatggcg aagctatgaa aatagctggg agcaaatatt cagcgcagggt gttgggtgcct 480
 cctggcaaaa acattatggc acggatgtcg tcaccaact cggctacggg caacgcatta 540
 gttggaatga cgtgattgat gctggcgcan astacgttg gaaaaacgac cttatgacgg 600
 tgacagagaa cacaacttat acgttgaatt cgatatgaca ttcagatttt aaggataaat 660
 atgttacgta atggaaataa atatctcctg atgctgggtga gtataattat gctcaccgcg 720
 tgcattagcc agtcaagaac atcatttata ccgccacagg atcgcgaate tttactcgcc 780
 gagcaaccgt ggccgcataa tgggttttgta gcgatttcat ggcataacgt tgaagacgaa 840
 gctgccgacc agcgttttat gtcagtgcgg acatcagcac tgcgtgaaca atttgcctgg 900
 ctgctcgaga acggttatca accggtcagt attgctcaa ttcgtgaagc acatcgagga 960
 ggaaaaaccg taccggaaaa agctgtagt ctgacttttg atgacggcta ccagagtttt 1020
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 ggcagttggg tcgatacgcc agcgataaa caagtaaaat ttggcgatga gttgggtcgat 1140
 cgagaatatt ttgccacgtg gcaacaagt cgagaagttg cgcgttccc gctcgttgag 1200
 ctgccttctc atacatggaa ttctactac ggtattcagg ctaatgccac cggcagctta 1260
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 gaataccggg aaagaattcg tctggatgct gtaaaaatga cggaatacct gcgtacaaag 1380
 gttgaggtaa atccacacgt ttyyrtttgg cttatggcg aagcgaatgg catagcgata 1440
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 tttgcccgag aaattattac cgtacaggaa aaatcaccac aacggataat gcatatcgat 1620
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 ggtgatgggc tgggtcaaaaga ggtctggttt ccaaatcggt tgctaccaat gaaagcagat 1800
 atttttagtc ggggttgctg gcaattacgt acccgctcag gtgtaaacad ctatgcgtgg 1860
 atgccggtat taagctggga tttagatccc acattaacgc gagtaaaata cttaccaaca 1920
 ggggagaaaa aagcacaat tcattcctgaa caatatcacc gtctctctcc tttcgatgac 1980
 agagtcagag cacaagttgg catgttatat gaagatcttg ccggacatgc tgcttttgat 2040
 ggcattattgt tccacgatga tgctttgctt tcagattatg aagatgccag tgcaccggct 2100
 atcacggctt atcagcaagc aggccttagc gggagtctga gcgaaattcg acaaaacccg 2160
 gagcaattta aacagtgggc ccgctttaa agtcgtgcgt taactgactt cacttttagaa 2220
 cttagtgcg 2229

<210> 19
 <211> 1232
 <212> DNA
 <213> Homo sapiens

<400> 19
 gaattcggca cgagcgcggc tctggagccg cccggcccg acatggcgac cgtccggggc 60
 tctctgcgag gtgcgctgct ccttctgctg gccgtggcg gggctcgagg ggtggcagg 120
 ggcctggctc cgggcagtg ggtgcatg ttgtgtaac attcaaagga taaccaaatg 180
 tgccgtgatg tatgtgaaca gattttctcc tcaaaaagt aatcccgact aaaacatctg 240
 ttgcagcgag cccagatta ttgccagag acaatggttg aaatttgaa ttgtatgaat 300
 tcattcttgc caggtgtgtt taagaagtct gatggctggg ttggcttagg ctgctgtgaa 360
 ctggctattg ccttggagtg tcgacaggca tgcaagcagg catcttcaa gaatgatatt 420
 tccaaagttt gcagaaaaga atatgagaat gctcttttca gttgcattag cagaaatgaa 480
 atgggctcgg tttgttgca ttatgcagg catcacaca actgccgaga atactgtcaa 540
 gccattttty gaacagactc ttctcctggt ccattctcaga taaagcagtg gaaaaattat 600
 tgcgcctcta ttagtcacac attaatatc tgtgtgaaca attatactca atcttatcca 660
 atgaggaacc cagatctgtg cactctgaca ctctcttat acgagatact 720
 gctggagcta aggagatggc agctcaataa aaaagcagaa agaggtttta agggtagaac 780

| | | | | | | |
|------------|-------------|-------------|------------|------------|------------|------|
| aaccgtctcc | atcttttgcca | atacagagga | atctggaaaa | gaaggcgcca | aacagatatg | 840 |
| cacagatttc | ttccaaagtc | agagaaaact | acttcaaaga | agcccttctg | aattctgtaa | 900 |
| tatggttgaa | agtgtttttt | tattttctgat | tctttgagaa | aattaaargc | agagccaaac | 960 |
| tgatatcttg | tcagagttcg | ctactgtact | atztatgtta | caacttagat | taattagcat | 1020 |
| aagatatata | aaagctttat | gtggtcctgg | aatgtaatga | aatatttgtt | ctggaattgg | 1080 |
| ttccttccgg | tgggttcttg | gtctcgctga | cttcaagagt | gaagccacag | accctcgcgt | 1140 |
| gagtgttaca | gctcttaaag | gtggcatcca | gagttgtttg | ttcctcccag | taggttcgtg | 1200 |
| gtctcgctga | cttcaggagt | gaagccgcag | ac | | | 1232 |

<210> 20
 <211> 1307
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (395)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (696)
 <223> n equals a,t,g, or c

| | | | | | | | |
|----------|------------|-------------|------------|------------|-------------|------------|------|
| <400> 20 | ggcagagcg | gtgcccagcc | cctgtcccct | ctgtcaaccc | cctgtcgctt | tggtgttggg | 60 |
| | ttcgttcccg | tcttcagcaa | aacgaccttg | gaacctcaat | gggggctgct | ttgctttggg | 120 |
| | aggttcttgt | tggtgggacc | agagctttga | caaacctcct | gtccttgggt | ggcacctctc | 180 |
| | ctggaaggac | gtcacaactc | caggtgctca | gactgcctgt | ggcagcagaa | ccagtgcctt | 240 |
| | tggcattttc | ctcccacaat | ggggaagggt | actttggcat | tcttacaac | tcgtctctcg | 300 |
| | gcctttctct | cctgccttcc | acagcctctc | gtttctcctc | catctgtgct | tattacttga | 360 |
| | ggactgtgtc | tgtcccgta | gagctgcgtg | ggcanggctg | cagttgggtc | caggtgggtg | 420 |
| | tcagctgtgc | tgatgcctgc | cattgggtcc | tccttaggct | ctgtaagtcg | tgacagcctt | 480 |
| | catcagtgc | atgtttgcag | ggtaattctt | aaacttttta | gagggtggca | ggtacatcag | 540 |
| | ttctttttga | tatgaaaaca | ttcatgtttc | agacattgaa | ttgagagctt | ttaggggaag | 600 |
| | cataatggtt | attgtcacta | tcaacagtct | aaaaagaaaa | actgaggtct | ttttaatctt | 660 |
| | gattacagca | ctcacggcat | gcaccctact | cagtgnnggt | gtcttcgatt | gggggctttt | 720 |
| | tttttttttt | tgcacttctg | aggctagata | tgtctggctg | aagatttgat | gtgggtcctc | 780 |
| | cttaagctat | gcgtcctgta | ataataggta | ctgtactggg | ctctgtgtaa | gtgtcggttg | 840 |
| | ggtaggacct | atattttaat | actgtcccta | acaattcatt | ttactagcga | gaaatctttg | 900 |
| | atttcatttt | atcctttgta | attctagaca | ctagattgta | gtttagccat | aactgatgtt | 960 |
| | ttttaaaaag | ggatatattt | tcttgacacg | ttgttcaaaa | aagagacaag | tttcagtcct | 1020 |
| | caatgctgtc | ctttgtttta | caggtacaag | ttttctagct | cagacaaact | atgaaaaact | 1080 |
| | gtagactatt | ctcaagggtat | taactcgcag | accctctggg | ggtaggggct | gttttctaag | 1140 |
| | ttacaggcag | agtgggactg | agatggtaca | gtgtgcacag | acagggtactg | agctgacaga | 1200 |
| | ctgggatttt | ctgtactaaa | atgttacttt | gtatcaaaa | ttaaacaggc | tttagtacia | 1260 |
| | caaataaagg | tcaatttctg | taaaaaaaaa | aaaaaaaaaa | aaaaaaa | | 1307 |

<210> 21
 <211> 1052
 <212> DNA
 <213> Homo sapiens

| | | | | | | | |
|----------|------------|-------------|------------|------------|------------|------------|-----|
| <400> 21 | ccacgcgtcc | gcaaccagggt | tcaagacgag | taagaggaat | gcaagttatc | tttttccaaa | 60 |
| | aagaattggt | ttcaatttaa | ttaagtttta | aattcgaaag | gagaataatg | gctcatgtaa | 120 |

| | | | | | | |
|------------|------------|------------|-------------|-------------|------------|------|
| aatgtgggca | tttgcaaata | agtaatatga | ttgtgtgtgt | gtctgtgggc | atgtgtgtat | 180 |
| gacagagaga | gagggagaga | gagacagaga | gagagagtca | gtggtcagtg | tctgtggatt | 240 |
| tggggacagg | atatattatg | atacatggtc | ccctggttcc | ttctttggag | ttccttcttc | 300 |
| ataggcacat | catcagccta | tattgacaaa | caggtaaaga | ttgttagaca | aaaatctacc | 360 |
| tattggggag | aaaaattttt | aaaaagatgt | gaaagggaaa | gaataaaaaga | gagtgaacaa | 420 |
| tcaggcaaga | gaggagaatt | aagagaaaga | cagcaaaaagt | caaatgaagc | aggctgcata | 480 |
| tatcagtcca | ttatactcat | ttaggggtgt | aagtgtgctt | ctctgaatct | gagagagtca | 540 |
| gagtctttta | agaaaggaag | aattcaagat | tttgcaatat | ctattaggta | taagaatgta | 600 |
| tttttttaaa | gttaagcaat | tccaggcaac | aacacatatc | agatgcatgt | tgtgggcaga | 660 |
| gccagggtag | caagcttagg | gaatcactgc | aaagaaaatt | gtatgtggac | tttgggtttg | 720 |
| tacttgaggc | aggtagacaa | atatgtatga | aactgtgttt | gacataccta | acaaaaatcc | 780 |
| atcaatggga | atttctccta | ccacagcatt | gcttcattgc | tgacataaat | gggacagaaa | 840 |
| ggaaatcttt | ttttaaaaaa | aaattaataa | ctagttaagg | ctaggatgga | ataatgtgtg | 900 |
| gtgctctgcc | ttgttccttg | atgacatttc | catttttcta | aggaagaaat | ctctattgat | 960 |
| ttagttttgc | ctgattataa | aagtaataca | aatttctttc | tcaaaatgca | tacaacaaat | 1020 |
| aaaaattgat | gaaaatcaaa | aaaaaaaaaa | aa | | | 1052 |

<210> 22
 <211> 1645
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|--------------|-------------|------------|-------------|-------------|------|
| <400> 22 | | | | | | |
| ggcagagacc | gagccagctc | ccgagacccc | attcatctac | cggctggagc | ggcaggaagt | 60 |
| gggctctgaa | gactggattc | agtgccttcag | catcgagaaa | gccggagccg | tggaggtgcc | 120 |
| gggcgactgt | gtgccctccg | agggtgacta | ccgcttccgc | atctgcacag | tcagcggaca | 180 |
| tggcgcgtag | ccccacgtgg | tggtccacgg | ttctgctcac | cttggtgcca | cagctcgccct | 240 |
| ggtggcaggt | ctggaggatg | tgacaggtata | cgacggggaa | gatgccgtct | tctccctcga | 300 |
| tctctccacc | atcatccagg | gtacctgggt | ccttaatggg | gaagagctca | agagtaacga | 360 |
| gccggagggc | caggtggaac | ctggggccct | gcggtaccgt | atagagcaga | agggctctgca | 420 |
| gcacagactc | atcctgcatg | ccgtcaagca | ccaggacagc | ggtgccctgg | tcggcttcag | 480 |
| ctgccccggc | gtgcaggact | cagctgccct | cacaatccaa | gagagcccgg | tgacatccct | 540 |
| gagccccgag | gacaaggtgt | cgttgacctt | cacaacctca | gagcgggtgg | tgctgacttg | 600 |
| tgagctctca | agggtggact | tcccggcaac | ctggtacaag | gatgggcaga | aggtggagga | 660 |
| gagcgagtgt | ctgggtgggtga | agatggatgg | gcgcaaacac | cgtctgatcc | tgctgaggc | 720 |
| caaagtccag | gacagtggcg | agtttgatgt | caggacagaa | ggggtctcgg | ccttcttcgg | 780 |
| cgtcactgtc | caagatccctc | ccgtgcacat | cgtggacccc | cgagaacatg | tgcttcgtgca | 840 |
| tgccataact | tccgagtgtg | tcagtgtggc | ctgtgaggtg | gaccgagagg | acgcccctgt | 900 |
| gcgttggtac | aaggacgggc | aggaggtgga | ggagagtgc | ttcgtgggtg | tgagaaatga | 960 |
| ggggccccat | cgccgccttg | tgctgcccgc | cacccatccc | tcagacgggg | gcgagtttca | 1020 |
| gtgcgtcgct | ggagatgagt | gtgcctactt | cactgtcacc | atcacagacg | tctcctcgctg | 1080 |
| gatcgtgtat | cccagcggca | aggtgtatgt | ggcagccgtg | cgccctggagc | gtgtggtgct | 1140 |
| gacctgtgag | ctatgccggc | cctgggcaga | ggtgcgctgg | accaaggatg | gagaggagggt | 1200 |
| ggtggagagc | cccgcgctgc | tccgtcagaa | ggaagacact | gtccgcccgc | tggtgctgcc | 1260 |
| cgctgtccag | ctcgaggact | ccggcgagta | cttgtgtgaa | attgacgatg | agtcggcctc | 1320 |
| cttactgtgc | accgtcacag | agtcttacca | aagtcaggac | agttcaaata | acaatccgga | 1380 |
| gttatgcgtc | ctcttgaaaa | agccgaagac | ccggcggtgc | tggtcccgtc | ccccccatg | 1440 |
| gcgacgaaca | gctggcactg | agtagcagct | gccccatag | tttggggccc | acattcctct | 1500 |
| gtccacacct | cctgccattg | ctttttgcct | ctccccagac | tgcttcagcc | gctaacctaa | 1560 |
| cctggccccct | gtgggcattt | gagtttgcca | ccccctgtgt | aaaccaataa | acatgcaaat | 1620 |
| aatgtataaa | aaaaaaaaaa | aaaaa | | | | 1645 |

<210> 23
 <211> 1770
 <212> DNA
 <213> Homo sapiens

<400> 23

| | | | | | | |
|------------|-------------|-------------|-------------|------------|------------|------|
| ggcacgagtc | tgaatacact | acatctccaa | aatctttctgt | tctctgcccc | aaactaccag | 60 |
| ttccagcgag | tgcacctatt | ccattcttcc | atcgctgtgc | tctgtggaac | atttctgtct | 120 |
| atgccaagtt | tgcagaggcc | ctgatcacct | ttgtcagtga | caatagtgtc | ttacacaggc | 180 |
| tgattagtgg | agtaatgacc | agcaaagaaa | ttatattggg | actttgcttg | ttatcactag | 240 |
| ttctatccat | gattttgatg | gtgataatca | ggtatatatc | aagagtactt | gtgtggatct | 300 |
| taacgattct | ggtcatactc | ggttcacttg | gaggcacagg | tgtactatgg | tggccgtatg | 360 |
| caaagcaaag | aagggtctccc | aaagaaactg | ttactcctga | gcagcttcag | atagctgaag | 420 |
| acaatcttcg | ggccctcttc | atztatgcca | tttcagctac | agtgttcaca | gtgatcttat | 480 |
| tcttgataat | gttggttatg | cgcaaacgtg | ttgctcttac | catcgcttg | ttccacgtag | 540 |
| ctggcaagg | cttcattcac | ttgccactgc | tagtcttcca | acccttctgg | actttctttg | 600 |
| ctcttgtctt | gttttggttg | tactggatca | tgacacttct | ttttcttggc | actaccggca | 660 |
| gtcctgttca | gaatgagcaa | ggctttgtgg | agttcaaaat | ttctgggctt | ctgcagtaca | 720 |
| tgtggtggta | ccatgtggtg | ggcctgattt | ggatcagtga | atztatctta | gcatgtcagc | 780 |
| agatgacagt | ggcaggagct | gtggtaacat | actattttac | tagggataaa | aggaatttgc | 840 |
| catttacacc | tattttggca | tcagtaaatc | gccttattcg | ttaccaccta | ggtacgggtg | 900 |
| caaaaggatc | tttcattatc | acattagtca | aaattccgcg | aatgatcctt | atgtatatct | 960 |
| acagtcagct | caaaggaaa | gaaaatgctt | gtgcacgatg | tgtgctgaaa | tcttgcattt | 1020 |
| gttgcccttg | gtgtcttgaa | aagtgcctaa | attattttaaa | tcagaatgca | tacacagcca | 1080 |
| cagctatcaa | cagcaccaac | ttctgcacct | cagcaaagga | tgcttttgct | attctggttg | 1140 |
| agaatgcttt | gcgagtggct | accatcaaca | cagtaggaga | ttttatgtta | ttccttggca | 1200 |
| aggtgctgat | agtctgcagc | acagggtttag | ctgggattat | gctgctcaac | taccagcagg | 1260 |
| actacacagt | atgggtgctg | cctctgatca | tcgtctgcct | ctttgctttc | ctagacgctc | 1320 |
| attgcttctt | gtctatttat | gaaatggtag | tggatgtatt | attcttgtgt | tttgccattg | 1380 |
| atacaaaata | caatgatggg | agccctggca | gagaattcta | tatggataaa | gtgctgatgg | 1440 |
| agtttgtgga | aaacagtagg | aaagcaaatg | aagaagctgg | taaggagggc | gtcgtgatt | 1500 |
| ccagagagct | aaagccgatg | ctgaagaaaa | ggtgactggt | ctcatgagcc | ctgaagaatg | 1560 |
| aactcagagg | aggttggtta | catgaggttc | tcccactcac | cagctgttga | gagtctgcga | 1620 |
| ttatgaagag | caggatctta | ttacttcaat | gaaagcatgt | aacaagtttc | tcaaaccacc | 1680 |
| aacagcccaa | gtggatttgg | tacagtgcgg | ctgtctaata | aataatcaaa | agcatttgat | 1740 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | | | | 1770 |

<210> 24

<211> 2105

<212> DNA

<213> Homo sapiens

<400> 24

| | | | | | | |
|------------|-------------|-------------|------------|-------------|-------------|------|
| ggcacgaggt | tttttagata | cccagaagct | tgttctggga | gaagctaggg | tgggtcagag | 60 |
| tagacctgat | gggtaactca | ggtaaagatg | cttttctttt | atctgaacta | cttaatgatt | 120 |
| gctttacttt | tactttttta | aaaaattcag | aatccaata | aaggaaagga | cggtaacctt | 180 |
| atgatagaag | gtgtggcatg | tgttactgtt | gggggaaagg | agtatattga | ctttgccttg | 240 |
| gttgatattt | ttatgcttgt | ctaggatggg | actagagtgt | tgatagtaac | atggcagcct | 300 |
| tttgctggca | gtgaaatgaa | cttaagaagc | tagggagtac | tatcctagtc | aaaactctcc | 360 |
| taatagtttt | tccttttgag | gaccaatctt | ataaagaaca | gcatactcag | ctttttactt | 420 |
| agtgtcagtt | gaggcatact | ctcaaaaagt | ttttccccta | aaatatcttt | caagttatta | 480 |
| ctgggtattt | aaatttcaag | tttagaaaatt | catttctttt | taactcaaag | tgcaaatttc | 540 |
| atataatgat | tatgatgggt | ttagtgtcca | tatttttgtg | gcttcactta | tcactctctt | 600 |
| cagcagtagc | taccacacagt | cagctcctag | taaaatggct | acaggaaaac | tgaaagaaaa | 660 |
| gtttaagcct | gagtaggcat | agagtaaaaa | atgcataatg | atgcattatt | aataataagag | 720 |
| taaggctttt | tttattttga | gtatcctaac | tccaaaccta | gtgttctttt | cactccatta | 780 |
| tcctgctgtt | tatagcaaat | caagacccat | aatgatacgt | ctttcattta | tttcagttct | 840 |
| gccaaggaaa | gagaaaatac | cttttaatcc | cagggaagg | attgcaatca | ccacattata | 900 |
| aggtatatgg | cgtggaatgc | agaattctaa | atactagaag | ggaaaagtag | ttggcagatt | 960 |
| catcagaggc | ttaaggataa | gtacttggtt | ccaattttaa | agtataatta | ggatttgtct | 1020 |
| taatgttctc | tagaaatact | ataattaatc | tagagatcta | tcaatgggtca | catctcagtt | 1080 |

| | | | | | | |
|-------------|------------|-------------|-------------|------------|------------|------|
| tttttcttcc | ctgagattca | aagacgtgta | ataccaatac | ttcagattcc | tatagtattt | 1140 |
| gggactttgt | agactagtga | atagatactt | tggtgctagt | ccaaatcctc | tgatttttgt | 1200 |
| ttgatttgtc | ctagcagatc | cctgaacttc | agagagtatt | gccatttgga | ttcatggagt | 1260 |
| tggcgaaactg | ctacactgct | accttggtga | tggctctaag | ctttgatcct | aatgactggt | 1320 |
| tgatgatcat | gataatatta | gggccagtg | atatagctca | tagtgataat | aaggattcta | 1380 |
| gggtattttt | ttttctttta | gaaaaagatc | ctggaagttt | atttgatctg | acatgttttt | 1440 |
| gtaatatatta | gaaatagctc | ttgtatcata | aaaagttgcc | cagtataaga | cacacaagat | 1500 |
| gtattttttt | ctctggtgaa | aatcatgcct | atcactagta | tatgtttgac | atttgtagta | 1560 |
| tacttaaaat | agtattgggt | gtgaggcatg | gtgggtgatga | aaagtagtcc | ttacggctac | 1620 |
| ttgttagtca | ttagagagaa | catggagaag | gggtcaaagt | tggatcatt | aacagggcaa | 1680 |
| tgacttgacc | cttctttcaa | ctgatcttac | tggtagttgt | ctctagtttt | taagtaaatt | 1740 |
| aatgatggac | catccccc | acagagaact | atgggggtat | gaaacaaggc | tgaaggcttt | 1800 |
| taaccatggg | agaaaaaggt | gttgggtatta | ttcatatagc | ataacctgag | gttggagagg | 1860 |
| accacttggg | agcctgtaac | caaaactaga | aggtaacttc | tgggatggac | ggaggttccc | 1920 |
| ttgaagcagt | gccaacctaa | atctacctca | ggtaagtagt | tagattaact | ttttcaagat | 1980 |
| ttcagaccaa | acaagacaac | ttgtattcag | ttgatgtatt | cctatgcttt | aatgtttttg | 2040 |
| tttgccttta | attattaaat | aaacatttgt | tctgaaaaac | tccaaaaaaa | aaaaaaaaaa | 2100 |
| aaaaa | | | | | | 2105 |

<210> 25
 <211> 4909
 <212> DNA
 <213> Homo sapiens

<220>
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 <223> n equals a,t,g, or c

<220>
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 <222> (2493)
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<220>
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 <222> (2512)
 <223> n equals a,t,g, or c

<220>
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 <223> n equals a,t,g, or c

| | | | | | | |
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| gcaagaagat | ggtgtttctg | ccctccaaat | ggtcccttgc | aacctagtca | tttctacttt | 120 |
| cctcactggt | ggctctctta | actgtgtcca | ctccttcattg | gtgtcagagc | actgaagcat | 180 |
| ctccaaaacg | tagtgatggg | acaccatttc | cttgggaataa | aatacgactt | cctgagtacg | 240 |
| tcattcccag | tcattatgat | ctcttgatcc | atgcaaacct | taccacgctg | accttctggg | 300 |
| gaaccacgaa | agtagaaatc | acagccagtc | agcccaccag | caccatcatc | ctgcatagtc | 360 |
| accacctgca | gatatctagg | gccaccctca | ggaaggaggc | tggagagagg | ctatcggaag | 420 |
| aacccttgca | ggctctggaa | cacccccctc | aggagcaaat | tgcactgctg | gctcccagagc | 480 |
| ccctccttgt | cgggctcccg | tacacagttg | tcattcacta | tgctggcaat | ctttcggaga | 540 |
| ctttccacgg | attttacaaa | agcacctaca | gaaccaagga | aggggaactg | aggatactag | 600 |
| catcaacaca | atttgaacct | actgcagcta | gaatggcctt | tccctgcttt | gatgaacctg | 660 |
| ccttcaaagc | aagttttctca | atcaaaatta | gaagagagcc | aaggcaccta | gccatctcca | 720 |

| | | | | | | |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| atatgccatt | ggtgaaatct | gtgactgttg | ctgaaggact | catagaagac | catttttgatg | 780 |
| tcactgtgaa | gatgagcacc | tatctgggtg | ccttcatcat | ttcagatttt | gagtctgtca | 840 |
| gcaagataac | caagagtggg | gtcaagggtt | ctgtttatgc | tgtgccagac | aagatgaatc | 900 |
| aagcagatta | tgcactggat | gctgcgggtg | ctcttctaga | attttatgag | gattattttca | 960 |
| gcataccgta | tccccctacc | aaacaagatc | ttgctgctat | ccccgacttt | cagtctgggtg | 1020 |
| ctatggaaaa | ctgggggactg | acaacatata | gagaatctgc | tctgttggtt | gatgcagaaa | 1080 |
| agtcttctgc | atcaagtaag | cttggcatca | caatgactgt | ggcccatgaa | ctggcccacc | 1140 |
| agtgggttgg | gaacctgggtc | actatggaat | ggtggaatga | tctttggcta | aatgaaggat | 1200 |
| ttgccaaatt | tatggagttt | gtgtctgtca | gtgtgacctg | tctgaactg | aaagtggag | 1260 |
| attattttctt | tggcaaatgt | tttgacgcaa | tggaggtaga | tgcttttaaat | tcctcacacc | 1320 |
| ctgtgtctac | acctgtggaa | aatcctgtct | agatccggga | gatgtttgat | gatgtttctt | 1380 |
| atgataaggg | agcttgtatt | ctgaatatgc | taagggagta | tcttagcgct | gacgcattta | 1440 |
| aaagtgggtat | tgtacagtat | ctccagaagc | atagctataa | aaatacaaaa | aacgaggacc | 1500 |
| tgtgggtag | tatggcaagt | atgtgcccta | cagatgggtg | aaaagggatg | gatggctttt | 1560 |
| gctctagaag | tcaacattca | tcttcatect | cacattggca | tcaggaaggg | gtggatgtga | 1620 |
| aaaccatgat | gaacacttgg | acactgcaga | ggggttttcc | cctaataacc | atcacagtga | 1680 |
| gggggaggaa | tgtacacatg | aagcaagagc | actacatgaa | gggctctgac | ggcgccccgg | 1740 |
| acactgggta | cctgtggcat | gttccattga | cattcatcac | cagcaaatec | gacatggtcc | 1800 |
| atcgattttt | gctaaaaaca | aaaacagatg | tgctcatcct | cccagaagag | gtggaatgga | 1860 |
| tcaaatttaa | tgtgggcatg | aatggctatt | acattgtgca | ttacgaggat | gatggatggg | 1920 |
| actctttgac | tggcctttta | aaaggaacac | acacagcagt | cagcagtaat | gatcgggcaa | 1980 |
| gtctcattaa | caatgcattt | cagctcgtca | gcattgggaa | gctgtccatt | gaaaaggcct | 2040 |
| tggatttatc | cctgtacttg | aaacatgaaa | ctgaaattat | gcccggtgtt | caaggtttga | 2100 |
| atgagctgat | tcctatgtat | aagttaatgg | agaaaagaga | tatgaatgaa | gtggaaactc | 2160 |
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| acgagggtc | agtctcagag | cgaatgctgc | ggagtgaact | actactcctc | gcctgtgtgc | 2280 |
| acaactatca | gccgtgcgta | cagagggcag | aaggctattt | cagaaaagtg | aaggaatcca | 2340 |
| atggaaaact | gagcctgcct | gtcgacgtga | ccttggcagt | gtttgctgtg | ggggcccaga | 2400 |
| gcacagaagg | ctgggatttt | ctttatagta | aatatcagtt | ttctttgtcc | agtactgaga | 2460 |
| aaagccaaat | tgaattttgcc | ctctgcanac | ccnaaaataa | ggaaaagctt | cnatggctac | 2520 |
| tanatgaaag | ctttaaggga | gataaaataa | aaactcagga | gtttccacaa | attctttacac | 2580 |
| tcattggcag | gaaccagta | ggatacccac | tggcctggca | atctctgagg | aaaaactgga | 2640 |
| acaaaacttg | acaaaagttt | gaacttggct | catcttccat | agcccacatg | gtaatgggta | 2700 |
| caacaaatca | attctccaca | agaacacggc | ttgaagaggt | aaaaggattc | ttcagctctt | 2760 |
| tgaaagaaaa | tggttctcag | ctccgttgtg | tccaacagac | aattgaaacc | attgaagaaa | 2820 |
| acatcggttg | gatggataag | aattttgata | aatcagagt | gtggctgcaa | agtgaagaagc | 2880 |
| ttgaacgtat | gtaaaaattc | ctcccttgcc | aggttcctgt | tatctctaat | caccaacatt | 2940 |
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| tcccttcaac | tcattttttg | actatcctg | tgaaaagaat | agctgttagt | ttttcatgaa | 3060 |
| tgggctatcg | ctaccatgtg | ttttgttcat | caagggtgtt | gccctgcaac | gtaaaaccca | 3120 |
| gtgttgggtt | ccctgccaca | gaagaataaa | gtaccttatt | cttctcattt | tatagtttat | 3180 |
| gcttaagcac | ccgtgtccaa | aaccctgtac | cccatgttta | tcattcataa | actgtttcat | 3240 |
| cagtctcctc | gaaagactct | gaatagtcga | ctactgaaca | atgaacacct | ggatctgaga | 3300 |
| ctaagccgga | cgatgactgg | gttaaagctc | tcccggctca | cccctccaga | cccgtgccc | 3360 |
| atccctcttc | cttgctccat | gcccaggggc | tgacttgtaa | aggccaagtc | atcaagcttt | 3420 |
| cttgcccttt | ggatgttggt | cagtggggag | ccggagagct | ggagctgggg | tcggaggagg | 3480 |
| tagtaggttg | aggtgttctt | ccctgattcc | cttgcgggat | gcctcgggct | ggcctcccct | 3540 |
| gaggttctta | gctccgagag | gggaccctct | tttccacaca | gccttctcca | cctctggatt | 3600 |
| ttggtaactg | ctccctcctc | atcccttcag | gattagtggc | ctcagtggga | gtctggcttt | 3660 |
| tactagtcct | ggcggacttg | tggtttctac | ataatgtgct | cgactttttg | caaaaaatct | 3720 |
| ttttatagaa | ccctcctcag | ataattctga | gtgtctgtca | tctatttccc | tgactgggtac | 3780 |
| agtatctctt | ctgaaaaagc | agagtgcatt | caagtctgta | ggaaaaccct | tttcttaggg | 3840 |
| aggtgatttt | ttttctctct | ctgcttctta | tttggcctac | tttacaattt | ctaactaact | 3900 |
| agttattggc | atttactgac | agtaaattat | tgcagtcacc | aataaatgat | agtacattgt | 3960 |
| gaaacaaaaat | atgtgtctcat | attagcaaat | aggacattct | ttggctttga | agtctttctt | 4020 |
| ttgtgaagac | ttcacacacg | gttgcttcag | cacacagttg | ctgctcaggt | tttatgtata | 4080 |
| gatgataata | atagaaagca | cagtttacta | acatggtaaa | ccaacggagt | tcaagtcaag | 4140 |
| tcagttaata | ccctaagaat | tagatttttat | ttcttattct | gaaaacttgc | tacacagggg | 4200 |

| | | | | | | |
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| cttatctaac | ccatagtgtg | ctctgttgct | gacttgatgc | aagttgcagc | gtgtttttgcg | 4260 |
| ctgactctaa | ggtgcggaaa | tcctcacacc | tggcaaagga | gaattcaaac | tgaacttttt | 4320 |
| gaatataagg | caaaaaacttc | aagataaggg | aatatgattg | atgattggta | cgaaaaatgt | 4380 |
| caaaaatgtg | ttcccctaatt | acacgacaaa | atagagtgc | ttctggacat | aaatctgcca | 4440 |
| tttattaaac | cattcactac | aacaaataaa | taggtataaa | agtggattg | gaattttttat | 4500 |
| acttatttgt | tgtagtgaat | ggtttaataa | aaatagaaat | caactggaat | ttccacccca | 4560 |
| aactaaacta | tttcccttct | tttaaaaaaa | tacacaacca | agattttaat | gtaaaaatatt | 4620 |
| ttgctttaat | tgtattttat | gccttgatta | atgaaacatg | gaaatattga | ttttcagttt | 4680 |
| tggtcacctg | aggaacctat | ctttgtttgc | ttttggaaaa | gcccattttc | taaacagata | 4740 |
| caatattgcc | acaacaatgt | gcagaaacct | ttttgataat | aaaaaattgt | tctttgcctc | 4800 |
| taaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 4860 |
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<210> 26

<211> 2916

<212> DNA

<213> Homo sapiens

<400> 26

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| tccattttac | ccgacccgac | gccggcggtga | tgtggcttcc | gctgggtgctg | ctcctggctg | 120 |
| tgtgtgtgct | ggcgtctctc | tgcaaagttt | acttgggact | attctctggc | agctccccga | 180 |
| atcctttctc | cgaagatgtc | aaacggcccc | cagcgccccct | ggtaactgac | aaggaggcca | 240 |
| ggaagaaggt | tctcaaacaa | ggaatccatt | acattggggc | tatggaagag | ggcagcattg | 300 |
| gccgttttat | cttgaccag | atcactgaag | ggcagctgga | ctgggctccc | ctgtcctctc | 360 |
| cttttgacat | catggtactg | gaagggccca | atggccgaaa | ggagtacccc | atgtacagtg | 420 |
| gagagaaaagc | ctacattcag | ggcctcaagg | agaagtttcc | acaggaggaa | gctatcattg | 480 |
| acaagtatat | aaagctggtt | aaggtggtat | ccagtggagc | ccctcatgcc | atcctgttga | 540 |
| aattcctccc | attgcccggtg | gttcagctcc | tgcacaggtg | tgggctgctg | actcgtttct | 600 |
| ctccattcct | tcaagcatcc | acccagagcc | tggctgaggt | cctgcagcag | ctgggggacct | 660 |
| cctctgagct | ccaggcagta | ctcagctaca | tcttccccac | ttacgggtgtc | accccccaacc | 720 |
| acagtgcctt | ttccatgcac | gcctgtgtgg | tcaaccacta | catgaaagga | ggctttttatc | 780 |
| cccagggggg | ttccagtga | attgccttcc | acaccatccc | tgtgattcag | cgggctgggg | 840 |
| gcgctgtcct | cacaaaggcc | actgtgcaga | gtgtgttgct | ggactcagct | gggaaagcct | 900 |
| gtgggtgtcag | tgtgaagaag | gggcatgagc | tgggtgaacat | ctattgcccc | atcgtggtct | 960 |
| ccaacgcagg | actgttcaac | acctatgaac | acctactgcc | ggggaacgcc | cgctgcctgc | 1020 |
| caggtgtgaa | gcagcaactg | gggacgggtg | ggcccggctt | aggcatgacc | tctgttttca | 1080 |
| tctgcctgcg | aggcaccaag | gaagacctgc | atctgccgtc | caccaactac | tatgtttact | 1140 |
| atgacacgga | catggaccag | gcgatggagc | gctacgtctc | catgcccagg | gaagaggctg | 1200 |
| cggaaacacat | ccctcttctc | ttcttcgctt | tcccatcagc | caaagatccg | acctgggagg | 1260 |
| accgattccc | aggccgggtc | accatgatca | tgtcataacc | cactgcctac | gagtgggttg | 1320 |
| aggagtggca | ggcggagctg | aagggaagc | ggggcagtga | ctatgagacc | ttcaaaaact | 1380 |
| cctttgtgga | agcctctatg | tcagtgttcc | tgaactgtt | cccacagctg | gaggggaagg | 1440 |
| tggagagtgt | gactgcagga | tccccactca | ccaaccagtt | ctatctggct | gctccccgag | 1500 |
| gtgcctgcta | cggggctgac | catgacctgg | gccgcctgca | cccttggtg | atggcctcct | 1560 |
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| tgtactcaga | ccttaagaat | cttgattcta | ggatccgggc | acagaagaaa | aagaattagt | 1740 |
| tccatcaggg | aggagtcaga | ggaattttgc | caatggctgg | ggcatctccc | ttgacttacc | 1800 |
| cataatgtct | ttctgcatta | gttcccttga | cgtataaagc | actctaattt | ggttctgatg | 1860 |
| cctgaagaga | ggcctagttt | aaatcacaat | tccgaatctg | gggcaatgga | atcactgctt | 1920 |
| ccagctgggg | caggtgagat | ctttacgcct | tttataacat | gccatcccta | ctaattaggat | 1980 |
| attgacttgg | atagcttgat | gtctcatgac | gagcggcgct | ctgcacccct | cacctatgcc | 2040 |
| tcctaactca | gtgatcaaa | cgaatatctc | atctgtggat | agaacccctg | gcagtgttgt | 2100 |
| cagctcaacc | tgggtgggttc | agttctgtcc | tgaggcttct | gctctcattc | atttagtgct | 2160 |
| acgctgcaca | gttctacact | gtcaagggaa | aaggagagact | aatgaggctt | aactcaaaac | 2220 |
| ctgggcatgg | ttttggttgc | cattccatag | gtttggagag | ctctagatct | cttttgtgct | 2280 |

007027" E499260

| | | | | | | |
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| gggttcagtg | gctcttcagg | ggacaggaaa | tgctgtgtc | tggccagtg | ggttctggag | 2340 |
| ctttggggta | acagcaggat | ccatcagtta | gtaggggtgca | tgtcagatga | tcatatccaa | 2400 |
| ttcatatgga | agtcccgggt | ctgtcttctt | tatcatcggt | gtggcagctg | gttctcaatg | 2460 |
| tgccagcagg | gactcagtac | ctgagcctca | atcaagcctt | atccaccaa | tacacaggga | 2520 |
| aggggtgatgc | aggggaagggt | gacatcagga | gtcagggcat | ggactggtaa | gatgaatact | 2580 |
| ttgctgggct | gaagcaggct | gcagggcatt | ccagccaagg | gcacagcagg | ggacagtgc | 2640 |
| gggaggtgtg | gggtaaggga | gggaagtcac | atcagaaaag | ggaaagccac | ggaatgtgtg | 2700 |
| tgaagcccag | aaatggcatt | tgcagttaat | tagcacatgt | gagggtaga | caggtagggtg | 2760 |
| aatgcaagct | caaggtttgg | aaaaatgact | tttcagttat | gtctttggta | tcagacatac | 2820 |
| gaaaggtctc | tttgtagttc | gtgttaatgt | aacattaata | aatttattga | ttccattgct | 2880 |
| ttaaaaaaaaa | aaaaaaaaaaa | aaaaaaaaaaa | aaaaaa | | | 2916 |

<210> 27

<211> 1257

<212> DNA

<213> Homo sapiens

<400> 27

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| cgccctaca | gccccagaa | cctggactgg | agggggccat | ggggcaccgg | accctgggtcc | 120 |
| tgccctgggt | gctgctgacc | ttgtgtgtca | ctgcggggac | cccgaggtg | tgggttcaag | 180 |
| ttcggtatgga | ggccaccgag | ctctcgtcct | tcaccatccg | ttgtgggttc | ctgggtctg | 240 |
| gctccatctc | cctggtgact | gtgagctggg | ggggccccga | cggtgctggg | gggaccacgc | 300 |
| tggctgtgtt | gcaccagaa | cgtggcatcc | ggcaatgggc | ccctgctcgc | caggcccgc | 360 |
| gggaaaccca | gagcagcatc | tctctcatcc | tgggaaggctc | tggggccagc | agcccctgcg | 420 |
| ccaacaccac | cttctgctgc | aagtttgcgt | ccttccctga | gggctcctgg | gaggcctgtg | 480 |
| ggagcctccc | gcccagctca | gaccagggc | tctctgcccc | gccgactcct | gccccattc | 540 |
| tgcgggcaga | cctggccggg | atcttggggg | tctcaggagt | cctcctcttt | ggctgtgtct | 600 |
| acctccttca | tctgctgcgc | cgacataagc | accgccctgc | ccctaggctc | cagccgtccc | 660 |
| gcaccagccc | ccaggcaccg | agagcacgag | catgggcacc | aagccaggcc | tcccaggctg | 720 |
| ctcttcacgt | cccttatgcc | actatcaaca | ccagctgccg | cccagctact | ttggacacag | 780 |
| ctcaccacca | tggggggccg | tcttgggtggg | cgtcactccc | caccacgct | gcacaccggc | 840 |
| cccagggccc | tgccgcctgg | gcctccacac | ccatccctgc | acgtggcagc | tttgtctctg | 900 |
| ttgagaatgg | actctacgct | caggcagggg | agaggcctcc | tcacactggt | cccggcctca | 960 |
| ctcttttccc | tgaccctcgg | ggggccaggg | ccatggaagg | acccttagga | gttcgatgag | 1020 |
| agagaccatg | aggccactgg | gctttccccc | tcccaggcct | cctgggtgtc | atccccctac | 1080 |
| tttaattctt | gggcctccaa | taagtgtccc | ataggtgtct | ggccaggccc | acctgctgcg | 1140 |
| gatgtggtct | gtgtgcgtgt | gtgggcacag | gtgtgagtgt | gtgagtgaca | gttaccctcat | 1200 |
| ttcagtcatt | tctgtctgca | actaagtcag | caacacagtt | tctctgaaaa | aaaaaag | 1257 |

<210> 28

<211> 1181

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (903)

<223> n equals a,t,g, or c

<400> 28

| | | | | | | |
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| tgcggaccgg | gcacaccgtg | ctgacctggg | gaatcacgct | ggtgctcttc | ctgcacgata | 120 |
| ccgagctgcg | gcaatgggag | gagcaggggg | agctgctcct | gcccctcacc | ttcctgctcc | 180 |
| tgggtgctggg | ctccctgctg | ctctacctcg | ctgtgtcact | catggaccct | ggctacgtga | 240 |
| atgtgcagcc | ccagcctcag | gaggagctca | aagaggagca | gacagccatg | gttcctccag | 300 |

| | | | | | | |
|-------------|------------|-------------|-------------|-------------|-------------|------|
| ccatccctct | tgggcgctgc | agatactgcc | tgggtgctgca | gccccctgagg | gctcggcact | 360 |
| gccgtgagtg | ccgccgttgc | gtccgccgct | acgaccacca | ctgccccctgg | atggagaact | 420 |
| gtgtgggaga | gcgcaaccac | ccactctttg | tgggtctacct | ggcgtctgcag | ctggtggtgc | 480 |
| ttctgtgggg | cctgtacctg | gcattggtcag | gcctccgggt | cttccagccc | tgggggtctgt | 540 |
| ggttgccggtc | cagcggggtc | ctgttcgcca | ccttccctgct | gctgtccctc | ttctcggttg | 600 |
| tggccagcct | gctcctcgtc | tcgcacctct | acctggtggc | cagcaacacc | accacctggg | 660 |
| aattcatctc | ctcacaccgc | atcgctatc | tccgccagcg | ccccagcaac | cccttcgacc | 720 |
| gaggcctgac | ccgcaacctg | gcccacttct | tctgtggatg | gccctcaggg | tccctgggaga | 780 |
| ccctctgggc | tgaggaggag | gaagagggca | gcagcccagc | tggttagggg | tgctggaggc | 840 |
| cgggctaccg | tcttgtgcct | gaaaaccacg | gggcctgtcc | ccagctgggg | tgagcgctca | 900 |
| ganggcctgg | ggccctcact | cctgcccacg | cctcccagac | cccagaacgg | agcttcaagt | 960 |
| cagacagatc | cctgccttgg | tgggcagttc | tgcttccaa | ggaagaagg | gaagaaaagg | 1020 |
| acctgtgggt | ggctcaggcc | caagcagacc | cggggtcca | ccccagcccc | gcccaggctg | 1080 |
| ctgccagtgc | acacttttac | aaattttaata | taaagcaagt | ccagtcttaa | aaagacaaaa | 1140 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | agggcgggccg | c | | 1181 |

<210> 29

<211> 1524

<212> DNA

<213> Homo sapiens

<400> 29

| | | | | | | |
|--------------|-------------|------------|------------|------------|-------------|------|
| ggcacgagaa | ggagctgggg | gatgtgcagg | gccacggcag | ggtgggcacc | agcagagccg | 60 |
| ccccccacc | tgtggatgaa | gagccagagt | cctctgaggt | cgatgctgct | ggtcgggtggc | 120 |
| ctggtgtctg | tgtagcaga | acatctccaa | cacccccaga | gtcggcaacc | accgttaagt | 180 |
| cacttatcaa | gtcatttgac | ttgggacgcc | caggtggagc | tgacagaaat | atttctgtcc | 240 |
| ataagacccc | cagaagtccc | ctaagtggga | taccagttag | gactgtctca | gcagctgctg | 300 |
| tctctccaat | gcagaggcat | tcgacttaca | gcagtgtgcg | gccagccagc | agaggggtga | 360 |
| ctcaacgctt | ggaccttcc | gaccttcccc | tctcagatat | tctaaaggga | aggactgaga | 420 |
| ccctgaagcc | agacccccac | ctccgcaaga | gtccctcact | agagtactg | agcagacccc | 480 |
| cgtctctggg | ctttggggac | acaagactgc | tgagtgtctc | cacccgggca | tggaaaccac | 540 |
| aaagcaaaact | cagtgtggaa | agaaaagacc | ctctggcggc | cttggcccgg | gaatacgggtg | 600 |
| gttccaagcg | caatgctcta | ctgaaatggt | gccagaagaa | gacacaaggt | tatgcgaaga | 660 |
| ggaatctctt | gttggcattt | gaagcggctg | aaagtgtagg | catcaaacc | agcctggaac | 720 |
| tcagcgagat | gctgtacaca | gaccggcccc | actggcagag | tgtgatgcag | tacgtggccc | 780 |
| aaatctacaa | gtacttttag | acgtaaccct | ggagggcctg | gggcagccac | cattgccacc | 840 |
| tactgcagct | tttccctgga | gcgcctgatt | actgtccact | gaccctgtct | tgcccaccac | 900 |
| ccagctgcct | agacttcaaa | gacaggctca | atccaagtgg | accaacacc | aaataagaaa | 960 |
| cagagtgggt | cccacgatgt | acctgtctga | aatgcaaatg | cagctggact | gtaaattggg | 1020 |
| gactctttga | tctcttggg | gatgttctta | aagagggcag | cctccctcct | tccagaccaa | 1080 |
| gacccacac | ccaggcttgt | tttgctgatt | atattgggtg | gctgaacgaa | cacattatct | 1140 |
| gcagaaattc | agacaaaagaa | catctccaaa | tcagtctttt | ggttgctgtt | gttaaaaaata | 1200 |
| tcccggcttt | gcctttatga | aacctttgcc | cttggctggg | tgtggtagct | cgtggctgta | 1260 |
| atcccagcac | tttaggaagc | caaggcagta | ggatcgtttg | agcccaggag | ttcagggtctg | 1320 |
| cagtgaagta | tgagcatacc | actgcactcc | agcctgtgtg | aaagagccag | accctgtctc | 1380 |
| aaaaaaaaatga | taaaacccaa | aactttgccc | ttgtgaacc | tcccttcccc | cctccccccc | 1440 |
| ccccaaaaaa | aacaacaaaa | cacaaaaaat | aaacatttgt | tccagggcaa | cctggaaaaa | 1500 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaa | | | | 1524 |

<210> 30

<211> 1597

<212> DNA

<213> Homo sapiens

<400> 30

| | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| tacgccgtgc | aggtaccggg | ccggaattcc | cgggtcgacc | cacgcgtccg | cctgcctgca | 60 |
|------------|------------|------------|------------|------------|------------|----|

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| | | | | | | |
|------------|-------------|------------|------------|------------|------------|------|
| gtaaaccact | gcctgaaccg | tggtcctagg | tggtgctgat | gctgggctgt | ctcaaaagcc | 120 |
| cttagtctgt | ttcaaagctt | cctgccaatg | gcaagaatgt | ggatgatgtg | attagaaatc | 180 |
| aatgaatgt | aactgttaca | ttgccaaaat | accatttagc | tctcatttgg | ctgctttttc | 240 |
| actttgggtg | ggcattatta | tcagtttgct | caaaaacagt | gcttatgaat | ctatccaatg | 300 |
| tccacaatgc | tggtatagga | taaaagscca | tttcttatta | gtccaaataa | cagagtggga | 360 |
| gacttttatt | cttttaattg | attgtgaggt | tctaaaagag | ataattgtaa | aagcaacaac | 420 |
| aacagcaaca | gcaatcatgg | ctgtatgctt | atttgaacaa | gactagaaat | gagagcagaa | 480 |
| atttgaaaag | ttaaagtatt | tgaatgacca | ccagatggca | gtgtggggcc | acctggaagc | 540 |
| tgaagccaaa | gtcgtggttc | tgtctctcta | ggcagcctct | gaaagtgtca | gccccaaaga | 600 |
| ggcaattgct | gtaaatgtat | aaggctaaag | tatcttatta | aatgattata | aaatatattt | 660 |
| aatgcattt | taaaaatgaa | gttcataaga | attattttag | gaaactgaaa | ggtttacatt | 720 |
| tactctaata | caaaaatttta | gcccacaagt | cttcaaaata | taattaactc | agagaagtct | 780 |
| cataaatcaa | gacagagaat | taatgaccac | atagagaaaa | tttaagaaac | aataattgat | 840 |
| ttttttaata | gggaagagat | cattaagcaa | ccacagccat | tacccaaata | attatttttc | 900 |
| tcctaattgg | tacaaccatt | gtgcatgaaa | atgatatgca | taagtttcac | ttactctaga | 960 |
| agaagtcaaa | ctatttttcac | aaaatttctg | cgtgttaagg | tgaaaaatct | gctgctgctt | 1020 |
| tttaatacat | cgtgacacag | gtatggcaag | cgaattcaca | aggtaatacc | agagtatttt | 1080 |
| ggggtgtaaa | aagagaaatc | cattttaaag | tttgagaatt | cttagtttaa | aatatactac | 1140 |
| aagaacgagc | ctctttatcc | ctgctctgcc | cctgtcatag | tgggagaatg | tgccacaaag | 1200 |
| gccatattaa | tgagaggact | ggaaagaaca | caaggagata | caaaacttca | agtcagtga | 1260 |
| aaagttacat | gttacatggg | attttggtaa | attcaatgtt | ctttcccttt | ttccctctag | 1320 |
| aatcacaatt | tcaaagatgc | tttaatttcc | tccctccctc | cctgcctccc | tcccttccct | 1380 |
| ccttcttccc | tcccttactt | tcttctgctc | tttcttggtt | tgatttacct | ccaagtggca | 1440 |
| gtaagtgcta | gctagcattt | aaattctcta | cttgggtggt | ttatattaag | ttatttcatt | 1500 |
| taattatata | tattcagtga | attagttatg | attactggta | ataataatgt | taataaaatc | 1560 |
| aattttatga | caaaaaaaaa | aaaaaaaggg | cggccgcg | | | 1597 |

<210> 31

<211> 1759

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (618)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1095)

<223> n equals a,t,g, or c

<400> 31

| | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ggttggtttg | ttttgctttt | tgaaagtgtg | gtccaagaac | cacctgaatc | agactcactt | 60 |
| ggatgtagtt | aaaaagcgca | gatccctaag | gccccttcag | acctaatagt | cagaaacact | 120 |
| ggggtggtg | cccagactgc | acccctcccc | ccgcccgcgc | ccgcccagga | tccctgggtg | 180 |
| ttcctgtgca | tatcgaagt | tgaaaagcat | gcttttccct | gaaattaaga | gacagtgaac | 240 |
| ccagttgtct | gcaaagagat | aggggacaga | aacttacatg | tacctaggac | gaagatgggt | 300 |
| ctttctgtac | ctttgtccct | tcccttcac | tgcactcccc | accttctgtg | cccttttgca | 360 |
| tgctcacaca | tccttctgta | tgatcaacgg | acttgggcac | gctgcacact | ccttggctta | 420 |
| tgaaactttc | acactgtcag | cagaggcgcg | cagagaccct | ccaaaagcca | cggaatgctc | 480 |
| catttgctcg | ttgccctcct | tttgcatctc | aggcttttgc | attctattct | aggcatctag | 540 |
| ttttccaggy | ttaggyctgt | cccccacctc | actgattctc | aaagggacat | tggatctcag | 600 |
| gagagtgcac | agcttctnag | aaacgcactt | attgtggggc | ctggaaattt | atttaatgcc | 660 |
| tctgagccca | aatttcacat | cctaacaagg | aactaattta | ttagcctggt | actgtagtct | 720 |
| ttttaatgg | taaatgaggt | aacaggtgaa | tgtgcccatg | aaggtcagca | gcccagtgac | 780 |
| tgccagcacc | ctgccactgc | caccactggt | gcaagtgtaa | gcatggacac | tggcaaccct | 840 |

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| | | | | | | |
|-------------|------------|------------|------------|------------|------------|------|
| gctccccact | gcaccctgcc | acaggtacaa | gtgcacacag | gaatgcagca | gctcgacttc | 900 |
| tgctgggtacc | ccaacccrc | caaggcataa | gcaccctgcg | gcgctgccac | aggtgccaga | 960 |
| acacgtgagt | gagcacagat | cctgctgcca | ccgscctaaa | gaagcacttt | gtctggcmcc | 1020 |
| acccwtcaga | gggttggtgc | taatggacca | ggaacamyty | tggmccytyt | gwtgcagcag | 1080 |
| gttcccawty | tyamnggggc | cagatacaaa | gctggggkcc | tggtaccact | ycccagactt | 1140 |
| agagtccacc | aggagtgcgt | agctgagccg | tggccctaa | aatcttccag | aaatgaaccc | 1200 |
| agtcaactga | acctacctta | taccgcaatg | aaacccctaa | gggcagcaaa | gaagagaaaa | 1260 |
| gcaaagaaaa | aaacatgcat | cgaaaggaca | gcaacttcag | aggttgaggg | aacatcatcc | 1320 |
| cacacagata | agaaggaatc | agcacaagaa | ctctggcaac | tcaaaatgcc | agawtgtttt | 1380 |
| cttacctcca | aatgaccaca | caagttcccc | agcaatggtc | cctacctggg | gctgaaatga | 1440 |
| cagaaaaaga | attcagatta | ccgacaggaa | cagagaacat | tatcattgac | atccaggaga | 1500 |
| aagttgaaac | ccaatccaag | gaatctaagg | aataataata | aacaatacag | gagataacat | 1560 |
| atgaaatggc | attttgagga | agaaccaaac | tgatctgata | gacctgaaaa | actcacttca | 1620 |
| agaatttcat | aatacaatca | cgaatattaa | cagcagaatc | aaccaagctg | aggaaagaat | 1680 |
| ctgagagttt | gaagcccagt | tctacaaaat | aaacaaaaat | aaagaaaaaa | caataaaaaa | 1740 |
| aaaaaaaaaa | aacctcgag | | | | | 1759 |

<210> 32
 <211> 2100
 <212> DNA
 <213> Homo sapiens

| | | | | | | |
|-------------|-------------|-------------|-------------|------------|-------------|------|
| <400> 32 | | | | | | |
| ggcagcagga | ctggaggcag | atgacaaaacc | tgctccttcc | agttgggtcc | tgtgagagca | 60 |
| aaagtctatc | agtggggcat | cagcaacatt | ccttcagctt | ggcagcagca | attctttcag | 120 |
| gatgtgacaa | gctgaataca | gcttgtagtg | tacagtttac | acgtatcagc | gtgacctctt | 180 |
| cccgcccacc | ctcattttccc | tttcagagat | ctgctcctgc | ttcatggggc | tcttccccaa | 240 |
| gcttctaagt | ttaatatattc | agattgttta | tttccttccc | tcagctctag | agatgacagt | 300 |
| tgcttcaccc | agttgccact | tctgtgatgc | ccttagagtct | ctctttttct | ctaattaaca | 360 |
| aaatgtatac | ttagttaaca | attatttatg | gtactttctc | tctgttcaaa | taacttcttc | 420 |
| ctgactacat | cctaactaac | agagagagaa | tgggatgatt | ccacttggtc | tgttcaatgt | 480 |
| ggtagcttct | actcactttg | gttacttaga | tgtaaattta | gttaattaaa | cataaataaa | 540 |
| atataaaaaac | tgtttctcag | ttacactagt | cacatttcaa | gcactcaata | gccacacgtg | 600 |
| gctactggct | actgtattgg | acagtggaga | tacagaacgt | ttctgtcatc | acgtaaagtt | 660 |
| ccatcagaga | tgctggggct | agaggaatga | agagtctcta | aggtggaggg | gaaatatgag | 720 |
| taaaagaact | tcattagaac | caggaaatga | aatacaagag | actcagcatg | agcttctcta | 780 |
| agaaaagaga | acatatatat | atatatatat | gcatacatat | atatgttatt | ttcattgctg | 840 |
| atgttaagac | agagacagca | aaacctagca | cttttagtca | ttagcataat | cacaaaattg | 900 |
| aaaaatatag | tttctctgat | cacagtgtcg | ttaaaatccc | atataattta | aaattaatga | 960 |
| tatgataaaa | ttatagttaa | atattgcata | aataaagtag | ttataaataa | agtagtcctt | 1020 |
| agaggacatt | tagagcctta | actaaatatt | tcagaaaaga | tgaaggtaga | attagaaatt | 1080 |
| tatgtgtcca | gctcaagaag | ttagaaaaag | aacaaaaagt | gaaatacgaa | gatggcagaa | 1140 |
| actttagaaa | atcagaaaaga | taccataaat | taattagaca | tcaaagatag | aagaaaatac | 1200 |
| aaagccagta | attagttatt | ttgaaggatt | aataaagttg | gtaagctcct | gggaagaatg | 1260 |
| atgaggaaaa | aatagagaag | gcacaaataa | tgctcagtaa | taacctagaa | actgatagag | 1320 |
| atgagaaagg | taagatatatt | ttaacaaccc | aagtccaata | aacttggaag | tttagaagaa | 1380 |
| atggacctat | ttctagaaaa | aaattttacca | aactggcctt | aaaaaagtag | agtatgtaa | 1440 |
| tggttcttta | agtattaaac | aattgggttca | tatttgtaata | cttcgttcaa | agataacttc | 1500 |
| aggctcacat | agcttccacta | ttgagttctg | tcccatTTTT | taaaaaggct | taatggccat | 1560 |
| catttacaaa | ttcttccaaa | aaatagtaat | aggggaacaa | tcagccatct | catttttatga | 1620 |
| tggttctccaa | acttttgattt | taaaaccaga | caaaggaaga | aaaattacag | gacaatctca | 1680 |
| catattaaca | atgggtccaaa | actcctaacc | aaaataatcc | ctaaccacaa | ataacaatat | 1740 |
| attacaccac | aattaagttt | ttttatgttc | taggaatgag | agattagttt | aaaatttgat | 1800 |
| cataaaccaa | tgtagtccat | cacattaaaa | aacaaaagat | aaaaatatta | taaatatata | 1860 |
| aaataatttg | agaaaatttta | tgattaaaaa | ttcttagtat | agatagttta | tatagaaaaa | 1920 |
| attcacaatc | tgataaagaa | gagttacccc | aaatcctcca | gctaacattt | tatgtaaaag | 1980 |
| taaaatagta | agaactttgc | ctttgagatt | aggaacaagt | aaagcttgcc | caattttactg | 2040 |

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ttcaacatgt tagtggaagt ttttttatca tttccagaag gcaaaaaaaaa aaaaaaaaaa 2100

<210> 33
<211> 2333
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (430)
<223> n equals a,t,g, or c

<400> 33
aattcggcac gagggcctcc ttaactcctc taaccaacag atgagatggt gacagaacct 60
aacatctact tagagatgat gtctcagggg caacagaaga ggcaggtgct gtagggccag 120
gcgggttacc tgtgtctgcc agaccctcca gtagttcaga atagcctcac tggcgccgag 180
atgataatgc tgtatgcaaa catgtcaagc tatcaaaggg agctgccttt cggtttcatt 240
aattttgttg tgtgcagctt cactgaagg cttcagggca cctgatctct tttgtgtgtt 300
gagaaagagc aagtgtcttg ccaggacaca gccctttttc ttgcaccctg agacatccta 360
agacactggc tgtttcacct gcccagtggt atttgtctgc ttcacagct ctctttctcc 420
ccctgacatn cttgcctggc attttgagtc agcctgagya taatccaaac cgaaatgaaa 480
tgctgtctgg aaatcttacc aaagaagcac agtcccactt cgtgcttcca tctcccaca 540
tcccaaggac caccgcctac tttaagagaa cacagacaat tcacctctat aaaggcacag 600
ccaggaaaag gagtaggcag aggtgacagc agatcatggg gcttctcttg aaaggaagac 660
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cagtctgcca ggtaggatg tggtaggggg tgcttggggg ggtggctcca atttacttg 840
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ctacagcagc aaagaatctg atgtcccat agtcccttga gcgagacctg agcagggctc 1260
atacagggag ggcataattc tctggcccca gggcattttc agtgtggccc tgttatgaaa 1320
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gctgtttcag gcttatcatt gctactgtag ggcgcttga agggagcagg gcttttaata 1440
gctcatccaa acctgaccac tacgcattta ctgatgtagg cagcatggaa gtccagctgg 1500
aaagatttag taggaagtca atcctacgta aatgcacct ttgctttttt ggtaaaggaa 1560
tcctttccat cagtaaacct cagatacagc ttaacaattt tagtctaaaa tatgttccaa 1620
aagatstacc tcakctcttt acataaagca aatctactag accaggctga gttttgatag 1680
aacataaacc ctyctgkttg ttggagatat ttacmaaagc ttgggtcttt atctaattag 1740
gtcacagaat gatcatactc aagatcttcc tggggagtc atggcaaatt tcaactgggt 1800
attttacaga tgaagaagga mcataaagaa gggtctggga cccgaagtc cacggaacac 1860
ccaccattac ctgatctttg gagcttgtca tttggccagt ggaccctaata aaacgtccac 1920
ggggatgtgg ggatagaatg ccggagcctg gctcgctagg gcatccaggt tcttctctcc 1980
tctttgcctt gctgtctcca ggcaccaaga atctctaca gttccccaaa gatgaacccc 2040
ccattatctc aggtcactct gtttcccccg atctttacca aattcctgac tcagagttcc 2100
tcccatttgc ttctgactct cattttatcc ttacctctca ttttattctt atgatgttta 2160
ccatttctct tctcctcagt gtcctctctc gagtggtaag agtatgttaa taagccagt 2220
ctgagaccgg agcacgaggc aactgctcaa tgttggtcat tgtcactgtt attaaatga 2280
acttaaggga aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 2333

<210> 34
<211> 409
<212> DNA

001021 3492260

<213> Homo sapiens

<220>

<221> SITE

<222> (291)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (345)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (349)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (390)

<223> n equals a,t,g, or c

<400> 34

| | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| gaattcggca | gagctgaaaa | gttccaaacc | ctttagtagt | cacctcaatc | catcctactc | 60 |
| tcgcccact | ccagatagcc | actcgtagcc | actcactcctc | ttgctgtctt | tatcgatttt | 120 |
| ccaattctgg | acatttcata | tcaatggaat | catacaacat | gggacatttt | gcgcctggcg | 180 |
| tctttcactt | gggcataatg | ttcacagggc | tcatccctgt | tgtagtgtgc | agcagccctg | 240 |
| cattccttcc | tgttgctgaa | tacttaatcc | actgtgtggg | tattcatcat | ntattagtgt | 300 |
| atgggacatt | tggggttgtt | ttccaccttt | tggtaatgat | ggggnaatna | ccgcaacaaa | 360 |
| cattcgtgtt | acaaagtgtt | gcggtggcan | ggggctcgtt | tttcttggg | | 409 |

<210> 35

<211> 3466

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (3462)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (3466)

<223> n equals a,t,g, or c

<400> 35

| | | | | | | |
|-------------|------------|------------|-------------|-------------|-------------|-----|
| acatgaacga | ggttgcaagt | tagatgttaa | gtagatcctc | tcctctgtgtt | ttcacctggg | 60 |
| aatgctgggt | tggtagtaat | cctccccaga | tgtggaggac | tgaagagggg | skggccttgg | 120 |
| ggggggtgtg | gttctggtct | gctcagcgca | tggactgttc | cctgtgtgtc | tgtgcgtgcc | 180 |
| tgcaattggg | ggtggtgtcc | aggggctcag | caaggcatgt | acacctgggc | tgggggtgtg | 240 |
| cagacgctgt | cagtgacaag | caccttccct | cagagcccgg | ttcctggaga | atgtggcgcc | 300 |
| agcagaaaca | gagaagcagg | ttgcgctggc | ccagggccgg | gcagagacac | ttgccggggc | 360 |
| catgcccatt | gaggcggtg | gacacccagg | tgagtaggtg | ggtgagcagg | cagagcctgc | 420 |
| ctgttggttt | gttgcctcac | agggggcatg | gcaytgacag | ctccttccct | ttcttttagat | 480 |
| gccccggcaac | tctgggactc | cccagagaca | gccccctgcag | ccagaacacc | ccagagccct | 540 |
| gccccctgtg | tcctgctccg | ggcccagcga | agccttgcac | cagagcccaa | ggagccactg | 600 |

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<210> 36
<211> 3468
<212> DNA
<213> Homo sapiens
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<400> 36
ggcagcagca aatatggtga tcagcacagt gcggtctggaa gaaatgggaa accaaaagtt      60
attgctgtca ctagaagtac ttcttcaact ttttctggtt ctaattctaa tgccttggtt      120
```

| | | | | | | |
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| gtgctttctc | tctgtggtcc | agaatctggc | ctcccaaaga | acccatcagt | tgtattttct | 240 |
| tctaattgagg | atttggaagt | cggtgaccaa | cagactagcc | taatttctac | aacagaagac | 300 |
| ataaatcaag | aggaagaagt | agctgtggaa | gataatagca | gtgaacaaca | gtttggtggt | 360 |
| tttaaggatt | ttgacttttt | agatgttgaa | ttggaagatg | cagaggggtga | aagtatggac | 420 |
| aatttcaact | ggggagttcg | caggcgctca | ctggacagta | ttgacaaagg | ggacactcca | 480 |
| tcctccagg | agtaccagtg | ctctagtagc | accccagcc | tgaacctcac | caatcaggag | 540 |
| gatacagatg | agtccctcga | agaagaagcg | gcacttacag | caagccagat | actctcacgc | 600 |
| acacagatgt | taaacagtga | ttctgccact | gatgaaacaa | taccagacca | tcctgactta | 660 |
| cttctccagt | ctgaagattc | cactggcagc | atcacacacag | aggaagtgtc | tcaaatacagg | 720 |
| gatgagaccc | caacttttga | ggcttctcta | gataatgcta | acagccggct | gcctgaggat | 780 |
| acaacttcag | tattaaagga | ggaacatgtt | acaacctttg | aagatgaagg | atcctatata | 840 |
| attcaagaac | agcaggaatc | tcttgtgtgt | caaggaattc | ttgatttaga | agaaactgaa | 900 |
| atgccagagc | ctctagctcc | tgaaggttac | cccaggtcag | tctgtgaaga | ggatgttacc | 960 |
| ttagctctga | aagagctaga | tgaagatgt | gaagaagaag | aagcggattt | ctccggactg | 1020 |
| tctagtcaag | atgaagaaga | gcaagatggt | tttccagaag | tacagacgtc | gcctctgccg | 1080 |
| tcaccatttc | tttctgccat | catagccgcc | tttcagcccg | tggcatatga | tgatgaagag | 1140 |
| gaagcttggc | gctgccacgt | caatcagatg | ctgtctgaca | ccgacgggtc | ctctgcagtg | 1200 |
| tttacttttc | atgtgttttc | taggtgtttt | cagacaattc | aaagaaagtt | tgggaaata | 1260 |
| actaatgagg | cagtcagctt | tcttgggtgat | agtctgcaac | gcattgggtac | caaatttaaa | 1320 |
| agttccttgg | aagtgatgat | gctgtgttca | gaatgcccc | cagtctttgt | ggatgctgaa | 1380 |
| acactgatgt | catgtggttt | gctggaaaca | ctcaagtttg | gtgttttgga | gttgcaagaa | 1440 |
| cacctggata | catacaatgt | gaaaagagaa | gccgctgagc | agtggctaga | tgattgtaag | 1500 |
| aggacatttg | gtgccaaaga | agacatgtat | aggataaaca | cagatgcaca | agaattggag | 1560 |
| ctctgccgaa | gattatacaa | attgcatttt | caattgctgc | ttctgttcca | ggcctactgt | 1620 |
| aaacttatca | accaagtaaa | tacgataaaa | aatgaagcag | aggatcatca | catgtcagag | 1680 |
| gaacttgccc | aactggaaa | tatcctcaaa | gaagctgagt | ccgcttccga | aaacgaagaa | 1740 |
| attgacattt | ccaaagctgc | acaaactact | atagaaactg | ccattcattc | tttaattgaa | 1800 |
| actttgaaaa | ataaagaatt | tatctcagct | gtagcacaag | tcaaagcttt | cagatctctc | 1860 |
| tggcccagtg | atatctttgg | cagttgtgaa | gatgaccttg | tacagacact | gatacatata | 1920 |
| tatttccatc | atcagacgct | gggccagaca | ggaagctttg | cagttatagg | ctctaacctg | 1980 |
| gacatgtcag | aagccaacta | caaactgatg | gaacttaatc | tggaaataag | agagtctcta | 2040 |
| cgcattggtg | aatcatacca | acttctagca | caggccaaac | caatgggaaa | tatggtgagc | 2100 |
| actggattct | gagacacttc | aggcctttag | gaaagaaact | aaactgaaga | tgatgaagaa | 2160 |
| tattaacca | gcacctttta | tggacccttg | cattcactga | taactttctg | gcagcatcta | 2220 |
| cttttttagt | taactaatgt | caaactgtat | catcaaaaa | aaagatctga | aagaaaaaaa | 2280 |
| catctgatat | tttaacagct | gccaatatct | cccacaataa | ctgcgtgaag | aaggaatttt | 2340 |
| tttaattact | aacctacgtg | aaaagaaaag | ggctaaaagt | gatgcctaca | aatacattac | 2400 |
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| aaccaaaagc | aggtgaaatg | aggctgaaat | caaggctgtt | tcatttttag | tgaagacctg | 2520 |
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| gtgtgtgtga | gttgggatgt | atggatatgt | gatagtcata | ttttcaaggt | atggatgttt | 2760 |
| ggtgataacg | tctcagagca | tgcctaaaag | agcactgcaa | gattattttt | gaagaaatgt | 2820 |
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| aaaactgggc | tttcccagta | tttcaaaaag | aaataatata | tctgttaacg | ttattggaat | 2940 |
| gctgctcagt | tctctgatca | gtgcttatgt | tatgattgtt | gataactaac | caaagtagat | 3000 |
| gcctgcagag | actttaaaa | gtaaaataaa | gatgtatgtc | gcctgtcagc | tattctcatt | 3060 |
| agaaaagttt | taacttattt | tactccatat | agaaactgta | gagactaaaa | ccagttattt | 3120 |
| tcttgtacat | ttgtgccatg | cactgttggt | atacaagaat | aggtgtacaa | agctaaagaa | 3180 |
| aaattgtggt | cattgatgat | ggaatatatg | acttgcaggc | tttgaagtct | gcagaattca | 3240 |
| agaaaagagc | tgcaaatgca | tttttgtatc | tttattcagg | actcacatgc | tttaccctaa | 3300 |
| agaaacctgg | ggctagggga | aatgaaagga | agcctgaaga | ctgactacca | aaacatgcaa | 3360 |
| tatacttatt | cactgtctaa | gtctgtagta | taacatgaac | tggagtctct | atccttttct | 3420 |
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<210> 37
 <211> 1112
 <212> DNA
 <213> Homo sapiens

<400> 37

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| agacggagaa | ggccagtgcc | cagcttgaag | gttctgtcac | cttttgcagt | ggtccaaatg | 120 |
| agaaaaaagt | ggaaaatggg | aggcatgaaa | tacatctttt | cgttgttggt | ctttcttttg | 180 |
| ctagaaggag | gcaaaacaga | gcaagtaaaa | cattcagaga | catattgcat | gtttcaagac | 240 |
| aagaagtaca | gagtgggtga | gagatggcat | ccttacctgg | aaccttatgg | gttggtttac | 300 |
| tgcgtgaact | gcatctgctc | agagaatggg | aatgtgcttt | gcagccgagt | cagatgtcca | 360 |
| aatgttcatt | gcctttctcc | tgtgcatatt | cctcatctgt | gctgccctcg | ctgcccagaa | 420 |
| gactccttac | ccccagtga | caataagggtg | accagcaagt | cttgcgagta | caatgggaca | 480 |
| acttaccaac | atggagagct | gttcgtagct | gaagggtctc | ttcagaatcg | gcaacccaat | 540 |
| caatgcacc | agtgcagctg | ttcggaggga | aacgtgtatt | gtggtctcaa | gacttgcccc | 600 |
| aaattaacct | gtgccttccc | agtctctgtt | ccagattcct | gctgccgggt | atgcagagga | 660 |
| gatggagaac | tgtcatggga | acattctgat | ggtgatattc | tccggcaacc | tgccaacaga | 720 |
| gaagcaagac | attcttacca | ccactctcac | tatgatcctc | caccaagccg | acaggctgga | 780 |
| ggtctgtccc | gctttcctgg | ggccagaagt | caccggggag | ctcttatgga | ttcccagcaa | 840 |
| gcatcaggaa | ccattgtgca | aattgtcatc | aataacaaac | acaagcatgg | acaagtgtgt | 900 |
| gtttccaatg | gaaagaccta | ttctcatggc | gagtcctggc | acccaaacct | ccgggcattt | 960 |
| ggcattgtgg | agtgtgtgct | atgtacttgt | aatgtcacca | agcaagagtg | taagaaaatc | 1020 |
| cactgcccc | atcgataccc | ctgcaagtat | cctcaaaaaa | tagacggaaa | gtgctgcaag | 1080 |
| gtgtgtccag | gtaaaaaaaaa | aaaaaaaaaa | aa | | | 1112 |

<210> 38
 <211> 2249
 <212> DNA
 <213> Homo sapiens

<400> 38

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| tcagtcctgc | taactacatt | gacaatgtgg | gcaacctgca | cttcctgtat | tcagaactct | 120 |
| gtaaagggtg | ctcccactac | ggcctgacca | aagataggaa | gaggcgctca | caagatggct | 180 |
| gtccagacgc | ctgtgcgagc | ctcacagcca | cggctccctc | cccagaggtt | tctgcagctg | 240 |
| ccaccatctc | cttaatgaca | gacgagcctg | gcctagacaa | cctgccttac | gtgtcctcgg | 300 |
| cagaggacgg | gcagccagca | atcagcccag | tggactctgg | ccggagcaac | cgaactaggg | 360 |
| cacggccctt | tgagagatcc | actattagaa | gcagatcatt | taaaaaaata | aatcgagctt | 420 |
| tgagtgttct | tcgaaggaca | aagagcggga | gtgcagttgc | caaccatgcc | gaccagggca | 480 |
| gggaaaattc | tgaaaacacc | actgcccctg | aagtctttcc | aagggtgtac | cacctgattc | 540 |
| cagatggtga | aattaccagc | atcaagatca | atcgagtaga | tcccagtga | agcctctcta | 600 |
| ttaggctggt | gggaggtagc | gaaaccccac | tgggtccatat | cattatccaa | cacatttatc | 660 |
| gtgatgggg | gatcgccaga | gacggccggc | tactgccagg | agacatcatt | ctaaaggcca | 720 |
| acgggatgga | catcagcaat | gtccctcaca | actacgctgt | gcgtctcctg | cggcagccct | 780 |
| gccagggtgct | gtggctgact | gtgatgcgtg | aacagaagtt | ccgcagcagg | aacaatggac | 840 |
| aggccccgga | tgccctacaga | ccccgagatg | acagctttca | tgtgattctc | aacaaaagta | 900 |
| ggccccgagg | agcagcttgg | aataaaaactg | gtgcgcaagg | tggatgagcc | tggggttttc | 960 |
| atcttcaatg | tgctggatgg | cgggtgtggca | tatcgacatg | gtcagcttga | ggagaatgac | 1020 |
| cgtgtgttag | ccatcaatgg | acatgatctt | cgatatggca | gcccagaaaag | tgcggctcat | 1080 |
| ctgattcagg | ccagtgaag | acgtgttcac | ctcgtcgtgt | cccgccagg | tcggcagcgg | 1140 |
| agccctgaca | tcttttcagga | agccgcgctg | gaacagcaat | ggcagctgg | ccccagggcc | 1200 |
| aggggagagg | agcaacactc | ccaagcccct | ccatcctaca | attacttgtc | atgagaagg | 1260 |
| ggtaaatatc | caaaaaagac | cccgggtgaat | ctctcggcat | gaccgtcgca | gggggagcat | 1320 |
| cacatagaga | atgggatttg | cctatctatg | tcatcagtg | tgagcccga | ggagtcataa | 1380 |
| gcagagatgg | aagaataaaa | acaggtgaca | ttttgttgaa | tgtggatggg | gtccgaactg | 1440 |
| acagaggtca | gcccggagtg | aggcagtggc | attattgaaa | agaacatcat | cctcgatagt | 1500 |

| | | | | | | |
|------------|-------------|-------------|------------|-------------|------------|------|
| actcaaagct | ttggaagtca | aagagtatga | gccccaggaa | gactgcagca | gcccagcagc | 1560 |
| cctggactcc | aaccacaaca | tggccccacc | cagtgactgg | tccccatcct | gggtcatgtg | 1620 |
| gctggaatta | ccacgggtgct | tgtataactg | taaagatatt | gtattacgaa | gaaacacagc | 1680 |
| tggaagtctg | ggcttctgca | ttgtaggagg | ttatgaagaa | tacaatggaa | acaaaccttt | 1740 |
| tttcatcaaa | tccattgttg | aaggaacacc | agcatacaat | gatggaagaa | ttagatgtgg | 1800 |
| tgatattctt | cttgctgtca | atggtagaag | tacatcagga | atgatacatg | cttgcttggc | 1860 |
| aagactgctg | aaagaactta | aaggaagaat | tactctaact | attgttttctt | ggcctggcac | 1920 |
| ttttttatag | aatcaatgat | gggtcagagg | aaaacagaaa | aatcacaaat | aataggctaa | 1980 |
| gaagttgaaa | cactatatatt | atcttgtcag | tttttatatt | taaagaaaga | atacattgta | 2040 |
| aaaatgtcag | gaaaagtatg | atcgtctaata | gaaagccagt | tacacctcag | aaaatatgat | 2100 |
| tccaaaaaaa | ttaaaactac | tagttttttt | tcagtgtgga | ggattttctca | ttactctaca | 2160 |
| acattgttta | tattttttct | attcaataaa | aagccctaaa | acaacaaaaa | aaaaaaaaaa | 2220 |
| aaaaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | | | | 2249 |

<210> 39

<211> 2636

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (632)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (887)

<223> n equals a,t,g, or c

<400> 39

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| tttggcccgg | ggatggtcac | acgcgcgggg | gccggaactg | ccgtcgccgg | cgcggtcggt | 120 |
| gtcgcattgc | tctcgccgc | actcgcgctg | tacgggccgc | cactggacgc | agttttagaa | 180 |
| agagcgtttt | cgctacgtaa | agcacattcg | ataaaggata | tggaaaatac | tttgcagctg | 240 |
| gtgagaaata | tcataacctc | tctgtcttcc | acaaagcaca | aagggcaaga | tggagaataa | 300 |
| ggcgtagtgg | gaggctgtca | ggagtagact | ggagccccat | attttgcaga | atctcagctc | 360 |
| tcaaagtggg | cgcagacttg | tcccacgtgt | tctgtgccag | tgcggccgca | cctgtgatta | 420 |
| aggcctagag | cccgagctg | atcgtccacc | cagttcttga | cagccccaat | gctgttcattg | 480 |
| aggtggagaa | gtggctgccc | cggtctcatg | ctcttgtcgt | aggacctggc | ttgggtagag | 540 |
| atgatgcgct | tctcagaaat | gtccagggca | ttttggaagt | gtcaaaggcc | agggacatcc | 600 |
| ctgttgtcat | cgacgcggat | ggcctgtggt | gngtcgctca | gcagccggcc | ctcatccatg | 660 |
| gctaccggaa | ggctgtgctc | actcccaacc | acgtggagtt | cagcagactg | tatgacgctg | 720 |
| tgctcagagg | ccctatggac | agcgatgaca | gccatggatc | tgtgctaaga | ctcagccaag | 780 |
| ccctgggcaa | cgtgacgggtg | gtccagaaaag | gagagcgcca | catcctctcc | aacggccagc | 840 |
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| gtcgggctcc | ctgggcgtcc | tggtacactg | ggcgctscct | gctggaccac | agawaacaaa | 960 |
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| ccaccaagcc | ttccagaagc | acggtcgtc | caccaccacc | tccgacatga | tcgccgaggt | 1080 |
| ggggggccgcc | ttcagcaagc | tctttgaaac | ctgagcccg | gcagaccaga | agtaaacagg | 1140 |
| caccttggac | gggggagagc | gtgtgtgtga | tgggaaaatc | cggacccacg | cgtgtgctga | 1200 |
| aggcgtacgg | tgcttgccag | attttcaact | tgagcataaa | ttggttgcca | ttgagaattt | 1260 |
| aagaatctgg | aatattgcag | cttttggtta | aacttaatgc | atggttggag | atgttatggc | 1320 |
| gacactaaac | aaagtattcc | tgaactttcc | ttagctcctt | ggtagtaact | gggaagacag | 1380 |
| aaatgaagaa | aatcacatga | gaatgaagaa | ttcttttagca | gctcaacaga | gtttctcggc | 1440 |
| ctgctcccag | atcggcgaa | tttctacttg | ttactctctc | tgcggcgcc | cttcgttcct | 1500 |
| cctctgcttc | ccttccttag | tctttcctcc | ggcagggagc | tgggcagggg | tccccgggtg | 1560 |
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| | | | | | | |
|-------------|-------------|-------------|-------------|-------------|-------------|------|
| catcttcttt | taaagtgggtg | actagcttgg | tggtatctgg | ctgctgggtgt | ttggcttatt | 1680 |
| gacatactcc | agggtaaatca | atgatgactt | tgtttgga | cccttttgga | ggcaccatgg | 1740 |
| gaacagaagg | aaacatgagt | gacgctgacc | cttgagtgtg | tgggtgggga | gctctgagac | 1800 |
| gcctcctgtc | ccacgctctc | cgggtgtccgt | gtctacacag | gggtcccat | gatacccacc | 1860 |
| ggccccagca | gggcagaccg | gaccggggac | gggcacgggtg | aagggtgca | gcctgggggtc | 1920 |
| tgacgtggcc | cctagtgtctg | tctcaggaga | aggctctgga | ggacttgagg | catgctgggc | 1980 |
| ctgggtgcagt | gatggcgcta | aggagaccg | gggaaagaca | gtatcgtgg | cacgtatgct | 2040 |
| taggaagcag | cacagccgtg | tccttaggga | tggtcgcgtc | cagtaaagac | actggtaact | 2100 |
| gcggtttcag | ccaacactct | tcattggcagt | gtcgacctcg | ggttagcttc | tggtgtcttt | 2160 |
| gtggatgggt | ttcctggagc | ggcctgacgt | tgacgtgttc | tctgggtccca | tgtcttagcg | 2220 |
| gggcattggt | cggtttcgtg | cctgacgcgt | gcattaggg | gttctcttat | actttcagta | 2280 |
| gctctttcc | acagcaagg | ccaaaccctc | ctggttccct | tcagagtctt | tttggcctga | 2340 |
| tgatgactct | tgagtgtatc | cctgtgatgc | agacatgccc | cagatggatt | ctactttctt | 2400 |
| taaaactagg | gactttcaag | attaaaaaaa | agattgtcac | tactaatttg | acgcctaact | 2460 |
| tcagaagctt | cactgtctac | atgtgaactt | ttccagaaaa | actgtgccat | ggacattttt | 2520 |
| cctctgggga | attaacatct | aaattctgg | aactattaaa | agacagatct | ggttaattta | 2580 |
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<210> 40

<211> 2636

<212> DNA

<213> Homo sapiens

<400> 40

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| tttggcccg | ggatggcac | acgcgcggg | gccggaactg | ccgtcgccg | cgcggtcggt | 120 |
| gtcgattgc | tctcgccgc | actcgcgtg | tacgggccgc | cactggacgc | agtttagaa | 180 |
| agagcggtt | cgctacgtaa | agcacattcg | ataaaggata | tggaaaatac | tttcagctg | 240 |
| gtgagaaata | tcataacctc | tctgtcttcc | acaaagcaca | aagggaaga | tggagaata | 300 |
| ggcgtagttg | gaggctgtca | ggagtacact | ggagcccat | atcttgca | atctcagctc | 360 |
| tcaaagtggg | cgcagacttg | tcccacgtgt | tctgtgccag | tgccggccga | cctgtgatta | 420 |
| aggcctacag | cccggagctg | atcgtccacc | cagttcttga | cagccccaat | gctgttcag | 480 |
| aggtggagaa | gtggctgcc | cggctgcag | ctcttgctg | aggacctggc | ttgggtagag | 540 |
| atgatgcgct | tctcagaaat | gtccagggca | ttttggaagt | gtcaaaggcc | agggacatcc | 600 |
| ctgttgctcat | cgacgcggat | ggcctgtggt | kggtcgctca | gcagccggcc | ctcatccatg | 660 |
| gctaccggaa | ggctgtgctc | actcccaacc | acgtggagtt | cagcagactg | tatgacgctg | 720 |
| tgctcagagg | ccctatggac | agcgatgaca | gccatggatc | tgtgctaaga | ctcagccaag | 780 |
| ccctgggcaa | cgtgacgggtg | gtccagaaag | gagagcgca | catcctctcc | aacggccagc | 840 |
| aggtgcttgt | gtgcagccag | gaaggcagca | gcgcaggtgt | ggagggsaag | gggacctcct | 900 |
| gtcgggcttc | ctgggcgtcc | tggtacactg | ggcgctscct | gctggaccac | agawaacaaa | 960 |
| tgggtccagc | cctctcctgg | tggccgcgtt | tggcgctgc | tctctcacca | ggcagtgcaa | 1020 |
| ccaccaagcc | ttccagaagc | acggtcgctc | caccaccacc | tccgacatga | tcgcccaggt | 1080 |
| gggggcccgc | ttcagcaagc | tctttgaaac | ctgagcccgc | gcagaccaga | agtaaacagg | 1140 |
| caccttgagc | gggggagagc | gtgtgtgtga | tgggaaaatc | cggaccacag | cgtgtgctga | 1200 |
| aggcgtacgg | tgcttgccag | atcttcaact | tgagcataaa | ttggttgcca | ttgagaattt | 1260 |
| aagaatctgg | aatattgcag | cttttggtta | aacttaatgc | atggttgagg | atgttatggc | 1320 |
| gacactaaac | aaagtattcc | tgaactttcc | ttagctcctt | gtagtaact | gggaagacag | 1380 |
| aatgaagaa | aatcacatga | gaatgaagaa | ttcttttagca | gtcaacaga | gtttctcggc | 1440 |
| ctgctcccag | atcggcggaag | ttctactctg | ttagctctctc | tgccggcgcc | cttcgttccct | 1500 |
| cctctgcttc | ccttccctag | cttttccctc | ggcagggagc | tgggcagggg | tccccgggtg | 1560 |
| tctccctgag | tcccgaactgc | actgactggg | tccatcagag | ggctgcttcg | ttctccagct | 1620 |
| catcttcttt | taaagtgggtg | actagcttgg | tggtatctgg | ctgctgggtgt | ttggcttatt | 1680 |
| gacatactcc | agggtaaatca | atgatgactt | tgtttgga | cccttttgga | ggcaccatgg | 1740 |
| gaacagaagg | aaacatgagt | gacgctgacc | cttgagtgtg | tgggtgggga | gctctgagac | 1800 |
| gcctcctgtc | ccacgctctc | cgggtgtccgt | gtctacacag | gggtcccat | gatacccacc | 1860 |
| ggccccagca | gggcagaccg | gaccggggac | gggcacgggtg | aagggtgca | gcctgggggtc | 1920 |
| tgacgtggcc | cctagtgtctg | tctcaggaga | aggctctgga | ggacttgagg | catgctgggc | 1980 |

| | | | | | | |
|------------|------------|------------|------------|-------------|------------|------|
| ctggtgcagt | gatggcgcta | aggagacccg | gggaaagaca | gtatcgtggg | cacgtatgct | 2040 |
| taggaagcag | cacagccgtg | tccttaggga | tgttcgcgtc | cagtaaagac | actggtaact | 2100 |
| gcggtttcag | ccaacactct | tcattggcag | gtcgacctcg | ggtagcttc | tgttgctctt | 2160 |
| gtggatgggt | ttcctggagc | ggcctgacgt | tgacgtgttc | tctgggtccca | tgtcttagcg | 2220 |
| gggcatggta | cggtttcgtg | cctgacgcgt | gcattagggt | gttctcttat | actttcagta | 2280 |
| gctcttttcc | acagcaaggg | ccaaaccctc | ctggttccct | tcagagtctt | tttggcctga | 2340 |
| tgatgactct | tgagtgtatc | cctgtgatgc | agacatgccc | cagatggatt | ctactttctt | 2400 |
| taaaactagg | gactttcaag | attaaaaaaa | agattgtcac | tactaatttg | acgcctaact | 2460 |
| tcagaagctt | cactgtctac | atgtgaactt | ttccagaaaa | actgtgccat | ggacattttt | 2520 |
| cctctgggga | attaacatct | aaattctggg | aactattaaa | agacagatct | ggttaattta | 2580 |
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<210> 41

<211> 2372

<212> DNA

<213> Homo sapiens

<400> 41

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| gcatgtgtgt | gccgtgtgct | ccagcctggc | tgtggacgtg | tgcttgtgtg | tgccgctgtt | 180 |
| ccggcctggc | tgtgggtgtg | tgtgtgcgtg | tgctgtgtgt | tgtgcgtgtg | tgtcttggct | 240 |
| tcaggggctg | tgaggccctt | gagagttggg | gctttgttct | ctgcacactg | gaaaccctcc | 300 |
| cccttctcac | agatgcctgg | ccgtggtggg | gctgcggtgg | ggacccactt | ggtcttgcgt | 360 |
| agtgatctgt | gacggctcgc | gggggtggctc | aggtatcagg | ggacagccat | gtctgtgagg | 420 |
| actccggccc | cgctcagatg | aggcagccca | gcccgtcgcc | caggggtccgg | cgtgggactg | 480 |
| cagtagggat | ggctctgcct | aggtggggcg | aggccgtgcg | gggctttagg | tgaggctggg | 540 |
| atctaactca | gcgcagcttc | aggtgggaga | aggggcagct | gggcccctct | ggtgactcac | 600 |
| atcacgtgag | acaacactgt | gccctggcct | ttccagtctt | tcctgcagct | gcgcaactgg | 660 |
| acggcctccc | tgctctgctc | cgcaaccgac | ctccccgccc | gtggcttcag | caaccagatc | 720 |
| ccgctggtgg | cgcgggggaa | ctgcaccttc | tatgagaaag | tgaggctggc | ccagggcagc | 780 |
| ggagcacgcg | ggctgtcat | cgtcagcagg | gagaggctgg | tacggccctg | tgcgctcccc | 840 |
| gctggggccag | ctctcagggg | caggaggggg | gtgcaggagg | cagagatggc | agcagctggg | 900 |
| gctgggtctc | cgacttctcg | ctaaaggcag | atccatctgt | ggggaggatc | tgggcccaggt | 960 |
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| tcccacggcc | gagggaggga | ttagtggcgc | tttttaggct | ggggccctgt | tgtcagggtga | 1740 |
| agaaggcttg | atgcccttcg | gcctccctgt | tcttgggtcc | tcctgggggg | ccggaggctg | 1800 |
| tcagctgcag | agggggagcc | agcaggcgcc | cccagcctga | cccagcctc | gagtgagggt | 1860 |
| cccaggagag | gaggdgaatg | ggcacagagc | tgggggcccc | cccactgctg | cgggtgatgc | 1920 |
| ctgccgctcc | ctcctctggg | cccccaggct | cccccggggg | gtaataagac | gcatatgatg | 1980 |
| agattggcat | tcccgtggcc | ctgctcagct | acaaagacat | gctggacatc | ttcacggtag | 2040 |
| gtctgcgcgc | gctcagacct | acgctcccga | ggagatgggg | cagggggctt | cgggctggct | 2100 |
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| cgggtggctc | tgacgcctgc | ctccgggtgtg | ttccttgagg | cagcgtttcg | gccgcagcgtg | 2280 |
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2372

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| gctccgggca gtgcgggtgc atttgtttgt aatcattcaa aggataacca aatgtgccgt | 180 |
| gatgatagtg aacagathtt ctctcaaaa agtgaatccc gactaaaaa tctgttcgag | 240 |
| cgagccccag attattgccc agagacaatg gttgaaatft ggaattgtat gaattcatct | 300 |
| ttgcagggtg tgtttaagaa gtctgatggc tgggttggct taggctgctg tgaactggct | 360 |
| attgccttgg agtgtcgaca ggcatgcaag caggcatctt caaagaatga tatttccaaa | 420 |
| gtttgcagaa aagaatatga gcctgtcctc cgttatttta gtgtgcttcc ttctcttgtc | 480 |
| tggatttctg cattgcccta ggaagtctgc cagtatgtgt tgatgaagga caagacagga | 540 |
| aagaatgctc ttttcagttg cattagcaga aatgaaatgg gctcggtttg ttgcagttat | 600 |
| gcaggtcadc acacaaaactg ccgagaatac tgtaagcca tttttcgaac agactcttct | 660 |
| cctgtgccat ctgagataaa agcagtaggaa aattatttgc cctctattag tcacaaatta | 720 |
| atacattgtg tgaacaatta tactcaatct tatccaatga ggaacccaac ggataggcct | 780 |
| cctgatgaag ctgcacctga aatggctctt cagagtctcc gctttgtaca tcctggaatc | 840 |
| catttttctt acctagaggt gaccagattt ataaaaactg actgattgac caaactgacc | 900 |
| aaagactgat ttataagatg tcaatgtttt gatttacact gtgatattga aagaggctct | 960 |
| gtggccttatg tctgtaatct cagcgctttg tgatgctgag gcaggagaat tgcttgaggc | 1020 |
| caagagtttg agaccagcct gggtaacaaa gtgagaacct agctctacaa aaaaaaaaaa | 1080 |
| ataataatta gctgggtgtg gtgacacacc cagctcctca ggaggctgat gctggaggat | 1140 |
| cgcttgagcc caagagttca aggttgcast gagccatcat cacttcactg cactccagcc | 1200 |
| agggacaaca agcaagacct tgcctcgggg ggaaaaaaaa aaaaaaaaaa | 1260 |
| aaaaaaaaa | 1268 |

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| cgaggtagcg | tgctccttct | gctggccgtg | gcgggggctg | cggagggtgg | agggggcctg | | | | | 120 |
| gtcccgggca | gtgcggggtg | atttgtttgt | aatcattcaa | aggataacca | aatgtgccgt | | | | | 180 |
| gatgtatgtg | aacagatttt | ctcctcaaaa | agtgaatccc | gactaaaaaca | tctgttgacg | | | | | 240 |
| cgagccccag | attattgccc | agagacaatg | gttgaaattt | ggaattgtat | gaattcatct | | | | | 300 |
| ttgccagggtg | tgtttaagaa | gtctgatggc | tgggttggct | taggctgtctg | tgaactggct | | | | | 360 |
| attgccttgg | agtgtcgaca | ggcatgcagc | aggcattctc | aaagaatgat | atttccaaag | | | | | 420 |
| tttcagaaaa | agaatatgag | cctgtccctc | gtatttttag | tgtgcttcct | tctcttgtct | | | | | 480 |
| ggatttctgc | attgccctag | gaagtctgcc | agtatgtgtt | gatgaaggac | aagacaggaa | | | | | 540 |
| agaatgctct | tttcagttgc | attagcagaa | atgaaatggg | ctcggtttgt | tgcagttatg | | | | | 600 |
| caaggtcctc | acacaaactg | ccgagaatac | tgtcaagcca | tttttcgaac | agactcttct | | | | | 660 |
| cctggtccat | ctcagataaa | agcagtggaa | aattattgcy | cctctattag | tccacaatta | | | | | 720 |
| atacattgtg | tgaacaatta | tacttcaatc | ttatccaatg | aggaacccaa | cggataggcc | | | | | 780 |
| tcttgatgaa | gctgcacctg | aaatggctct | tcagagtctc | cgctttgtac | atcctggaat | | | | | 840 |
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| caaagactga | tttataagat | gtcaatgttt | tgatttacac | tgtgatattg | aaagaggctc | | | | | 960 |
| tgtgcttat | gtctgtaaat | tcagcgcttt | gtgatgtcga | ggcaggagaa | ttgcttgagg | | | | | 1020 |
| ccaagagttt | gagacgacc | tgggtaacaa | agtgagaacc | cagctctaca | aaaaaaaaat | | | | | 1080 |
| aataataatt | agctgggtgt | ggtgacacac | ccagctcctc | aggaggctga | tgctggagga | | | | | 1140 |

| | | | | | | |
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| tcgcttgagc | ccaagagttc | aaggttgagc | tgagccatca | tcacttcact | gcactccagc | 1200 |
| cagggcaaca | aagcaagacc | ctgcctcggg | gggaaaaaaa | aaaaaaaaaa | aaaaaaaaaa | 1260 |
| aaaaaaaa | | | | | | 1268 |

<210> 44
 <211> 2254
 <212> DNA
 <213> Homo sapiens

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| gggcccgggtg | cgcaccgtgg | ccaacgtcac | agtcaaaggg | cccatcctga | agcgtgccc | 180 |
| cggaagctcg | acgtcctgga | aggagagaat | gctgtgctgc | tagtggaac | tctagaggcc | 240 |
| ggggctcgagg | gacgtctggg | ccgtgatggg | gaggagctgc | cggatcatctg | ccagagcagc | 300 |
| tcaggccaca | tgcattgccct | ggtccttcca | ggggtcaccc | gagaggatgc | tggcgaggtc | 360 |
| accttttagcc | tgggcaactc | ccgtaccact | acgtttctca | gagtaaaatg | tgtcaagcac | 420 |
| agtccccccag | gaccccccat | attggcagag | atgttcaagg | gccacaagaa | cacggctctg | 480 |
| ttgacctgga | agcctcccca | gccagctccc | gagaccccat | tcattctaccg | gctggagcgg | 540 |
| caggaagtgg | gctctgaaga | ctggattcag | tgcttcagca | tcgagaaagc | cggagccgtg | 600 |
| gaggtgccgg | gcgactgtgt | gccctccgag | gggtgactacc | cgttcccgca | tctgcacagt | 660 |
| cagcggacat | gccgtagtcc | ccacgtgggtg | ttccacgggtt | ctgctcacct | ttgtgccac | 720 |
| agctcgccctg | gtggcaggtc | tggaggatgt | gcagggtatac | gacgggggaag | atgccgtctt | 780 |
| ctccctcgat | ctctccacca | tcattccaggg | tacctgggttc | ccttaattggg | gaagagctca | 840 |
| agagtaacga | gccggaggggc | caggtggaac | ctggggccct | gcggtaccgt | atagagcaga | 900 |
| agggtctgca | gcacagactc | atcctgcatg | ccgtcaagca | ccaggacagc | ggtgccctgg | 960 |
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| gtgctgactt | gtgagctctc | aagggtggac | ttcccggcaa | cctgggtacaa | ggatgggcag | 1140 |
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| tctgcctga | aggccaaagt | ccaggacagt | ggcgagtttg | agtgcaggac | aagaaggggt | 1260 |
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| gatgagtcgg | cctccttcac | tgtaaccctc | acagagtctt | accaaagtca | ggacagttca | 1860 |
| aataacaatc | cggagtattg | cgctcctctg | aaaaagccga | agaccggcg | gctctgggtcc | 1920 |
| cgttcccccc | catggccacg | aacagctggc | actgagtagc | agctgcccc | atagtttggg | 1980 |
| gcccacattc | ctctgtccca | cctccctgcc | attgcttttt | gcctctcccc | agaccgcttc | 2040 |
| accttccacc | cgggtgtggt | accaggtaag | tgtaccggtt | tgcgaccctt | gtgttaaacc | 2100 |
| aataaacatg | caaataaatg | tacaacgtcg | tgactgggaa | aaccctggcg | ttaccctaac | 2160 |
| aatcgctctg | cagcacatcc | cccttccg | agctggcgta | atagcgaaga | gcccgaccga | 2220 |
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<210> 45
 <211> 1707
 <212> DNA
 <213> Homo sapiens

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| gccacctggg | tgtgagctat | gccctctgcc | agaaatgctc | tttcctctat | tggcctggcc | 240 |
| acacctactc | agtctttggg | tctgtttaac | tgccacttcc | cccagtaaac | cttctgctcc | 300 |
| ccattcacat | cagatggact | tgtgtctctt | gcactagtct | atgagatttg | gatgtctgtg | 360 |
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| tgtgcccgcg | cgtgttgcca | tgctaaggat | agtgcaccgc | cgtgtctgca | ataggttcca | 660 |
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| gttctgcccac | acgctgcggg | aatttgcgct | tgagtatcgg | acttgccggg | aacgagtgtc | 780 |
| acagcagcag | cagaagcagg | ccacataacc | tgagcgcaac | aagacccggg | gacgcatgat | 840 |
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| aagccccag | caaccctct | gtcccagtag | cagtgcagcag | cggggccaggc | cggggagatg | 1020 |
| ctgcagtgca | tgctagtatg | aagagtctgc | tgaccagcag | gcctgaggac | accacacaca | 1080 |
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<210> 46
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 46
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 35 40 45
 Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val Tyr Cys Val Asn
 50 55 60
 Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser Arg Val Arg Cys
 65 70 75 80
 Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro His Leu Cys Cys
 85 90 95
 Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn Asn Lys Val Thr
 100 105 110
 Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln His Gly Glu Leu

09726643 "120100

| 115 | | | | | 120 | | | | | 125 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Phe | Val | Ala | Glu | Gly | Leu | Phe | Gln | Asn | Arg | Gln | Pro | Asn | Gln | Cys | Thr |
| 130 | | | | | | 135 | | | | | 140 | | | | |
| Gln | Cys | Ser | Cys | Ser | Glu | Gly | Asn | Val | Tyr | Cys | Gly | Leu | Lys | Thr | Cys |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Lys | Leu | Thr | Cys | Ala | Phe | Pro | Val | Ser | Val | Pro | Asp | Ser | Cys | Cys |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Arg | Val | Cys | Arg | Gly | Asp | Gly | Glu | Leu | Ser | Trp | Glu | His | Ser | Asp | Gly |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Asp | Ile | Phe | Arg | Gln | Pro | Ala | Asn | Arg | Glu | Ala | Arg | His | Ser | Tyr | His |
| | 195 | | | | | | 200 | | | | | 205 | | | |
| Arg | Ser | His | Tyr | Asp | Pro | Pro | Pro | Ser | Arg | Gln | Ala | Gly | Gly | Leu | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Arg | Phe | Pro | Gly | Ala | Arg | Ser | His | Arg | Gly | Ala | Leu | Met | Asp | Ser | Gln |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Gln | Ala | Ser | Gly | Thr | Ile | Val | Gln | Ile | Val | Ile | Asn | Asn | Lys | His | Lys |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| His | Gly | Gln | Val | Cys | Val | Ser | Asn | Gly | Lys | Thr | Tyr | Ser | His | Gly | Glu |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Ser | Trp | His | Pro | Asn | Leu | Arg | Ala | Phe | Gly | Ile | Val | Glu | Cys | Val | Leu |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Cys | Thr | Cys | Asn | Val | Thr | Lys | Gln | Glu | Cys | Lys | Lys | Ile | His | Cys | Pro |
| | 290 | | | | | 295 | | | | | 300 | | | | |
| Asn | Arg | Tyr | Pro | Cys | Lys | Tyr | Pro | Gln | Lys | Ile | Asp | Gly | Lys | Cys | Cys |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Lys | Val | Cys | Pro | Glu | Glu | Leu | Pro | Gly | Gln | Ser | Phe | Asp | Asn | Lys | Gly |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Tyr | Phe | Cys | Gly | Glu | Glu | Thr | Met | Pro | Val | Tyr | Glu | Ser | Val | Phe | Met |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| Glu | Asp | Gly | Glu | Thr | Thr | Arg | Lys | Ile | Ala | Leu | Glu | Thr | Glu | Arg | Pro |
| | | 355 | | | | | 360 | | | | | | 365 | | |
| Pro | Gln | Val | Glu | Val | His | Val | Trp | Thr | Ile | Arg | Lys | Gly | Ile | Leu | Gln |
| | | | | | | 375 | | | | | 380 | | | | |
| His | Phe | His | Ile | Glu | Lys | Ile | Ser | Lys | Arg | Met | Phe | Glu | Glu | Leu | Pro |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| His | Phe | Lys | Leu | Val | Thr | Arg | Thr | Thr | Leu | Ser | Gln | Trp | Lys | Ile | Phe |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| Thr | Glu | Gly | Glu | Ala | Gln | Ile | Ser | Gln | Met | Cys | Ser | Ser | Arg | Val | Cys |
| | | | 420 | | | | | 425 | | | | | 430 | | |

007037" E4992260

Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr Leu Glu Arg Ser
 435 440 445

Glu Lys Gly His Cys
 450

<210> 47

<211> 446

<212> PRT

<213> Homo sapiens

<400> 47

Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala Val
 1 5 10 15

Leu Leu Ala Leu Leu Gly Thr Ala Trp Ala Glu Val Trp Pro Pro Gln
 20 25 30

Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg Lys Glu Ser
 35 40 45

Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser Trp Val Gln Pro
 50 55 60

Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser Asp Ser Leu Ala Gln
 65 70 75 80

Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly Ile Pro Thr Pro Ser Leu
 85 90 95

Ala Ser Gly Leu Trp Arg Thr Leu Gln Val Gly Trp Asn Met Gln Leu
 100 105 110

Leu Pro Ala Gly Leu Ala Ser Phe Val Glu Val Val Ser Leu Trp Phe
 115 120 125

Ala Glu Gly Gln Arg Tyr Ser His Ala Ala Gly Glu Cys Ala Arg Asn
 130 135 140

Ala Thr Cys Thr His Tyr Thr Gln Leu Val Trp Ala Thr Ser Ser Gln
 145 150 155 160

Leu Gly Cys Gly Arg His Leu Cys Ser Ala Gly Gln Ala Ala Ile Glu
 165 170 175

Ala Phe Val Cys Ala Tyr Ser Pro Gly Gly Asn Trp Glu Val Asn Gly
 180 185 190

Lys Thr Ile Ile Pro Tyr Lys Lys Gly Ala Trp Cys Ser Leu Cys Thr
 195 200 205

Ala Ser Val Ser Gly Cys Phe Lys Ala Trp Asp His Ala Gly Gly Leu
 210 215 220

Cys Glu Val Pro Arg Asn Pro Cys Arg Met Ser Cys Gln Asn His Gly
 225 230 235 240

001021 "ETH992460

Arg Leu Asn Ile Ser Thr Cys His Cys His Cys Pro Pro Gly Tyr Thr
245 250 255

Gly Arg Tyr Cys Gln Val Arg Cys Ser Leu Gln Cys Val His Gly Arg
260 265 270

Phe Arg Glu Glu Glu Cys Ser Cys Val Cys Asp Ile Gly Tyr Gly Gly
275 280 285

Ala Gln Cys Ala Thr Lys Val His Phe Pro Phe His Thr Cys Asp Leu
290 295 300

Arg Ile Asp Gly Asp Cys Phe Met Val Ser Ser Glu Ala Asp Thr Tyr
305 310 315 320

Tyr Arg Ala Arg Met Lys Cys Gln Arg Lys Gly Gly Val Leu Ala Gln
325 330 335

Ile Lys Ser Gln Lys Val Gln Asp Ile Leu Ala Phe Tyr Leu Gly Arg
340 345 350

Leu Glu Thr Thr Asn Glu Val Ile Asp Ser Asp Phe Glu Thr Arg Asn
355 360 365

Phe Trp Ile Gly Leu Thr Tyr Lys Thr Ala Lys Asp Ser Phe Arg Trp
370 375 380

Ala Thr Gly Glu His Gln Ala Phe Thr Ser Phe Ala Phe Gly Gln Pro
385 390 395 400

Asp Asn His Gly Phe Gly Asn Cys Val Glu Leu Gln Ala Ser Ala Ala
405 410 415

Phe Asn Trp Asn Asn Gln Arg Cys Lys Thr Arg Asn Arg Tyr Ile Cys
420 425 430

Gln Phe Ala Gln Glu His Ile Ser Arg Trp Gly Pro Gly Ser
435 440 445

<210> 48

<211> 834

<212> PRT

<213> Homo sapiens

<400> 48

Met Lys His Thr Leu Ala Leu Leu Ala Pro Leu Leu Gly Leu Gly Leu
1 5 10 15

Gly Leu Ala Leu Ser Gln Leu Ala Ala Gly Ala Thr Asp Cys Lys Phe
20 25 30

Leu Gly Pro Ala Glu His Leu Thr Phe Thr Pro Ala Ala Arg Ala Arg
35 40 45

Trp Leu Ala Pro Arg Val Arg Ala Pro Gly Leu Leu Asp Ser Leu Tyr
50 55 60

001001 "E492260

Gly Thr Val Arg Arg Phe Leu Ser Val Val Gln Leu Asn Pro Phe Pro
 65 70 75 80
 Ser Glu Leu Val Lys Ala Leu Leu Asn Glu Leu Ala Ser Val Lys Val
 85 90 95
 Asn Glu Val Val Arg Tyr Glu Ala Gly Tyr Val Val Cys Ala Val Ile
 100 105 110
 Ala Gly Leu Tyr Leu Leu Leu Val Pro Thr Ala Gly Leu Cys Phe Cys
 115 120 125
 Cys Cys Arg Cys His Arg Arg Cys Gly Gly Arg Val Lys Thr Glu His
 130 135 140
 Lys Ala Leu Ala Cys Glu Arg Ala Ala Leu Met Val Phe Leu Leu Leu
 145 150 155 160
 Thr Thr Leu Leu Leu Leu Ile Gly Val Val Cys Ala Phe Val Thr Asn
 165 170 175
 Gln Arg Thr His Glu Gln Met Gly Pro Ser Ile Glu Ala Met Pro Glu
 180 185 190
 Thr Leu Leu Ser Leu Trp Gly Leu Val Ser Asp Val Pro Gln Glu Leu
 195 200 205
 Gln Ala Val Ala Gln Gln Phe Ser Leu Pro Gln Glu Gln Val Ser Glu
 210 215 220
 Glu Leu Asp Gly Val Gly Val Ser Ile Gly Ser Ala Ile His Thr Gln
 225 230 235 240
 Leu Arg Ser Ser Val Tyr Pro Leu Leu Ala Ala Val Gly Ser Leu Gly
 245 250 255
 Gln Val Leu Gln Val Ser Val His His Leu Gln Thr Leu Asn Ala Thr
 260 265 270
 Val Val Glu Leu Gln Ala Gly Gln Gln Asp Leu Glu Pro Ala Ile Arg
 275 280 285
 Glu His Arg Asp Arg Leu Leu Glu Leu Leu Gln Glu Ala Arg Cys Gln
 290 295 300
 Gly Asp Cys Ala Gly Ala Leu Ser Trp Ala Arg Thr Leu Glu Leu Gly
 305 310 315 320
 Ala Asp Phe Ser Gln Val Pro Ser Val Asp His Val Leu His Gln Leu
 325 330 335
 Lys Gly Val Pro Glu Ala Asn Phe Ser Ser Met Val Gln Glu Glu Asn
 340 345 350
 Ser Thr Phe Asn Ala Leu Pro Ala Leu Ala Ala Met Gln Thr Ser Ser
 355 360 365

00726643 "1.20100

Val Val Gln Glu Leu Lys Lys Ala Val Ala Gln Gln Pro Glu Gly Val
 370 375 380
 Arg Thr Leu Ala Glu Gly Phe Pro Gly Leu Glu Ala Ala Ser Arg Trp
 385 390 395 400
 Ala Gln Ala Leu Gln Glu Val Glu Glu Ser Ser Arg Pro Tyr Leu Gln
 405 410 415
 Glu Val Gln Arg Tyr Glu Thr Tyr Arg Trp Ile Val Gly Cys Val Leu
 420 425 430
 Cys Ser Val Val Leu Phe Val Val Leu Cys Asn Leu Leu Gly Leu Asn
 435 440 445
 Leu Gly Ile Trp Gly Leu Ser Ala Arg Asp Asp Pro Ser His Pro Glu
 450 455 460
 Ala Lys Gly Glu Ala Gly Ala Arg Phe Leu Met Ala Gly Val Gly Leu
 465 470 475 480
 Ser Phe Leu Phe Ala Ala Pro Leu Ile Leu Leu Val Phe Ala Thr Phe
 485 490 495
 Leu Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn
 500 505 510
 Gly Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser
 515 520 525
 Met Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His
 530 535 540
 Gln Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu
 545 550 555 560
 Gln Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln
 565 570 575
 Tyr Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr
 580 585 590
 Gln Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala
 595 600 605
 Leu Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val
 610 615 620
 Gln Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln
 625 630 635 640
 Glu Leu Gln Gly Leu Ala Gln Ala Gln Asp Asn Ser Val Leu Gly Gln
 645 650 655
 Arg Leu Gln Glu Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys
 660 665 670
 Val Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg

| 675 | | | | | 680 | | | | | 685 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Glu | Ser | Ser | Ala | Pro | Asn | Leu | Gln | Leu | Glu | Thr | Ser | Asp | Val |
| 690 | | | | | 695 | | | | | 700 | | | | | |
| Leu | Ala | Asn | Val | Thr | Tyr | Leu | Lys | Gly | Glu | Leu | Pro | Ala | Trp | Ala | Ala |
| 705 | | | | | 710 | | | | | 715 | | | | | 720 |
| Arg | Ile | Leu | Arg | Asn | Val | Ser | Glu | Cys | Phe | Leu | Ala | Arg | Glu | Met | Gly |
| | | | | 725 | | | | | 730 | | | | | 735 | |
| Tyr | Phe | Ser | Gln | Tyr | Val | Ala | Trp | Val | Arg | Glu | Glu | Val | Thr | Gln | Arg |
| | | | 740 | | | | | 745 | | | | | 750 | | |
| Ile | Ala | Thr | Cys | Gln | Pro | Leu | Ser | Gly | Ala | Leu | Asp | Asn | Ser | Arg | Val |
| | | 755 | | | | | 760 | | | | | 765 | | | |
| Ile | Leu | Cys | Asp | Met | Met | Ala | Asp | Pro | Trp | Asn | Ala | Phe | Trp | Phe | Cys |
| | 770 | | | | | 775 | | | | | 780 | | | | |
| Leu | Ala | Trp | Cys | Thr | Phe | Phe | Leu | Ile | Pro | Ser | Ile | Ile | Phe | Ala | Val |
| 785 | | | | | 790 | | | | | 795 | | | | | 800 |
| Lys | Thr | Ser | Lys | Tyr | Phe | Arg | Pro | Ile | Arg | Lys | Arg | Leu | Ser | Ser | Thr |
| | | | 805 | | | | | | 810 | | | | | 815 | |
| Ser | Ser | Glu | Glu | Thr | Gln | Leu | Phe | His | Ile | Pro | Arg | Val | Thr | Ser | Leu |
| | | 820 | | | | | 825 | | | | | | 830 | | |

Lys Leu

<210> 49

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (60)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 49

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Phe | Cys | Leu | Ile | Phe | Leu | Leu | Leu | Ile | Leu | Glu | Phe | Cys | Gln |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Phe | Asp | Cys | Leu | Arg | Lys | Cys | Tyr | Tyr | Arg | Leu | Thr | Cys | Leu | Ser |
| | | 20 | | | | | 25 | | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Leu | Leu | Leu | Asn | Leu | Leu | Ile | Phe | Phe | Ser | Glu | Lys | Val | Val | Ser |
| | 35 | | | | | 40 | | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Asn | Pro | Asn | Ile | Val | Val | Ile | Gly | Leu | Ala | Xaa | Val | Ile | Met | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ile | Met | Phe | Ile | Lys | Trp | Leu | Leu | Ile | Leu | Leu | Ile | Phe | Leu | Leu |
| | 65 | | | | 70 | | | | 75 | | | | | 80 | |

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Ser Phe Lys Asn Leu Gly Lys Glu Gln Glu Glu Arg Glu Asp Leu Leu
 85 90 95

Asn Ser Leu Leu Thr Thr Ser
 100

<210> 50
 <211> 419
 <212> PRT
 <213> Homo sapiens

<400> 50
 Met Lys Ala Leu Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala Asn
 1 5 10 15

Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu Leu Cys
 20 25 30

Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Arg Ser
 35 40 45

Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro
 50 55 60

Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu
 65 70 75 80

Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln
 85 90 95

Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala
 100 105 110

Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Lys Ile
 115 120 125

Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val
 130 135 140

Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala
 145 150 155 160

Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile
 165 170 175

Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile
 180 185 190

Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Ile Gln
 195 200 205

His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro
 210 215 220

Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro
 225 230 235 240

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His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp
 245 250 255
 Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln
 260 265 270
 Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu
 275 280 285
 Asn Lys Ser Ser Pro Glu Glu Gln Leu Gly Ile Lys Leu Val Arg Lys
 290 295 300
 Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly Gly Val
 305 310 315 320
 Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu Ala Ile
 325 330 335
 Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala His Leu
 340 345 350
 Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg Gln Val
 355 360 365
 Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Gly Trp Asn Ser Asn
 370 375 380
 Gly Ser Trp Ser Pro Gly Pro Gly Glu Arg Ser Asn Thr Pro Lys Pro
 385 390 395 400
 Leu His Pro Thr Ile Thr Cys His Glu Lys Val Val Asn Ile Gln Lys
 405 410 415
 Arg Pro Arg

<210> 51
 <211> 468
 <212> PRT
 <213> Homo sapiens

<400> 51
 Met Gly Arg Gly Trp Gly Phe Leu Phe Gly Leu Leu Gly Ala Val Trp
 1 5 10 15
 Leu Leu Ser Ser Gly His Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala
 20 25 30
 Gln Arg Cys Phe Cys Gln Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys
 35 40 45
 Asp Val Glu Thr Ile Asp Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg
 50 55 60
 Leu Gln Lys Leu Leu Glu Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn
 65 70 75 80

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Leu Lys Arg Pro Cys Pro Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg
 85 90 95
 Arg Asp Cys Ala Val Lys Pro Cys Gln Ser Asp Glu Val Pro Asp Gly
 100 105 110
 Ile Lys Ser Ala Ser Tyr Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile
 115 120 125
 Glu Glu Cys Glu Gln Ala Glu Arg Leu Gly Ala Val Asp Glu Ser Leu
 130 135 140
 Ser Glu Glu Thr Gln Lys Ala Val Leu Gln Trp Thr Lys His Asp Asp
 145 150 155 160
 Ser Ser Asp Asn Phe Cys Glu Ala Asp Asp Ile Gln Ser Pro Glu Ala
 165 170 175
 Glu Tyr Val Asp Leu Leu Leu Asn Pro Glu Arg Tyr Thr Gly Tyr Lys
 180 185 190
 Gly Pro Asp Ala Trp Lys Ile Trp Asn Val Ile Tyr Glu Glu Asn Cys
 195 200 205
 Phe Lys Pro Gln Thr Ile Lys Arg Pro Leu Asn Pro Leu Ala Ser Gly
 210 215 220
 Gln Gly Thr Ser Glu Glu Asn Thr Phe Tyr Ser Trp Leu Glu Gly Leu
 225 230 235 240
 Cys Val Glu Lys Arg Ala Phe Tyr Arg Leu Ile Ser Gly Leu His Ala
 245 250 255
 Ser Ile Asn Val His Leu Ser Ala Arg Tyr Leu Leu Gln Glu Thr Trp
 260 265 270
 Leu Glu Lys Lys Trp Gly His Asn Ile Thr Glu Phe Gln Gln Arg Phe
 275 280 285
 Asp Gly Ile Leu Thr Glu Gly Glu Gly Pro Arg Arg Leu Lys Asn Leu
 290 295 300
 Tyr Phe Leu Tyr Leu Ile Glu Leu Arg Ala Leu Ser Lys Val Leu Pro
 305 310 315 320
 Phe Phe Glu Arg Pro Asp Phe Gln Leu Phe Thr Gly Asn Lys Ile Gln
 325 330 335
 Asp Glu Glu Asn Lys Met Leu Leu Leu Glu Ile Leu His Glu Ile Lys
 340 345 350
 Ser Phe Pro Leu His Phe Asp Glu Asn Ser Phe Phe Ala Gly Asp Lys
 355 360 365
 Lys Glu Ala His Lys Leu Lys Glu Asp Phe Arg Leu His Phe Arg Asn
 370 375 380

09726643 "120100

Ile Ser Arg Ile Met Asp Cys Val Gly Cys Phe Lys Cys Arg Leu Trp
385 390 395 400

Gly Lys Leu Gln Thr Gln Gly Leu Gly Thr Ala Leu Lys Ile Leu Phe
405 410 415

Ser Glu Lys Leu Ile Ala Asn Met Pro Glu Ser Gly Pro Ser Tyr Glu
420 425 430

Phe His Leu Thr Arg Gln Glu Ile Val Ser Leu Phe Asn Ala Phe Gly
435 440 445

Arg Ile Ser Thr Ser Val Lys Glu Leu Glu Asn Phe Arg Asn Leu Leu
450 455 460

Gln Asn Ile His
465

<210> 52

<211> 347

<212> PRT

<213> Homo sapiens

<400> 52

Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly Ala Val Val
1 5 10 15

Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro Pro Leu Asp
20 25 30

Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His Ser Ile Lys
35 40 45

Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile Pro Pro Leu
50 55 60

Ser Ser Thr Lys His Lys Gly Gln Asp Gly Arg Ile Gly Val Val Gly
65 70 75 80

Gly Cys Gln Glu Tyr Thr Gly Ala Pro Tyr Phe Ala Ala Ile Ser Ala
85 90 95

Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys Ala Ser Ala Ala
100 105 110

Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val
115 120 125

Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg
130 135 140

Leu His Ala Leu Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu
145 150 155 160

Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile
165 170 175

001021" E4932460

Pro Val Val Ile Asp Ala Asp Gly Leu Trp Leu Val Ala Gln Gln Pro
180 185 190

Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu Thr Pro Asn His Val
195 200 205

Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg Gly Pro Met Asp Ser
210 215 220

Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser Gln Ala Leu Gly Asn
225 230 235 240

Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile Leu Ser Asn Gly Gln
245 250 255

Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser Arg Arg Cys Gly Gly
260 265 270

Gln Gly Asp Leu Leu Ser Gly Ser Leu Gly Val Leu Val His Trp Ala
275 280 285

Leu Leu Ala Gly Pro Gln Lys Thr Asn Gly Ser Ser Pro Leu Leu Val
290 295 300

Ala Ala Phe Gly Ala Cys Ser Leu Thr Arg Gln Cys Asn His Gln Ala
305 310 315 320

Phe Gln Lys His Gly Arg Ser Thr Thr Thr Ser Asp Met Ile Ala Glu
325 330 335

Val Gly Ala Ala Phe Ser Lys Leu Phe Glu Thr
340 345

<210> 53

<211> 523

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (248)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (249)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

Met Leu Arg Asn Gly Asn Lys Tyr Leu Leu Met Leu Val Ser Ile Ile
1 5 10 15

Met Leu Thr Ala Cys Ile Ser Gln Ser Arg Thr Ser Phe Ile Pro Pro
20 25 30

Gln Asp Arg Glu Ser Leu Leu Ala Glu Gln Pro Trp Pro His Asn Gly
35 40 45

0070227 2492260

Phe Val Ala Ile Ser Trp His Asn Val Glu Asp Glu Ala Ala Asp Gln
 50 55 60
 Arg Phe Met Ser Val Arg Thr Ser Ala Leu Arg Glu Gln Phe Ala Trp
 65 70 75 80
 Leu Arg Glu Asn Gly Tyr Gln Pro Val Ser Ile Ala Gln Ile Arg Glu
 85 90 95
 Ala His Arg Gly Gly Lys Pro Leu Pro Glu Lys Ala Val Val Leu Thr
 100 105 110
 Phe Asp Asp Gly Tyr Gln Ser Phe Tyr Thr Arg Val Phe Pro Ile Leu
 115 120 125
 Gln Ala Phe Gln Trp Pro Ala Val Trp Ala Pro Val Gly Ser Trp Val
 130 135 140
 Asp Thr Pro Ala Asp Lys Gln Val Lys Phe Gly Asp Glu Leu Val Asp
 145 150 155 160
 Arg Glu Tyr Phe Ala Thr Trp Gln Gln Val Arg Glu Val Ala Arg Ser
 165 170 175
 Arg Leu Val Glu Leu Ala Ser His Thr Trp Asn Ser His Tyr Gly Ile
 180 185 190
 Gln Ala Asn Ala Thr Gly Ser Leu Leu Pro Val Tyr Val Asn Arg Ala
 195 200 205
 Tyr Phe Thr Asp His Ala Arg Tyr Glu Thr Ala Ala Glu Tyr Arg Glu
 210 215 220
 Arg Ile Arg Leu Asp Ala Val Lys Met Thr Glu Tyr Leu Arg Thr Lys
 225 230 235 240
 Val Glu Val Asn Pro His Val Xaa Xaa Trp Pro Tyr Gly Glu Ala Asn
 245 250 255
 Gly Ile Ala Ile Glu Glu Leu Lys Lys Leu Gly Tyr Asp Met Phe Phe
 260 265 270
 Thr Leu Glu Ser Gly Leu Ala Asn Ala Ser Gln Leu Asp Ser Ile Pro
 275 280 285
 Arg Val Leu Ile Ala Asn Asn Pro Ser Leu Lys Glu Phe Ala Gln Gln
 290 295 300
 Ile Ile Thr Val Gln Glu Lys Ser Pro Gln Arg Ile Met His Ile Asp
 305 310 315 320
 Leu Asp Tyr Val Tyr Asp Glu Asn Leu Gln Gln Met Asp Arg Asn Ile
 325 330 335
 Asp Val Leu Ile Gln Arg Val Lys Asp Met Gln Ile Ser Thr Val Tyr
 340 345 350

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Leu Gln Ala Phe Ala Asp Pro Asp Gly Asp Gly Leu Val Lys Glu Val
355 360 365

Trp Phe Pro Asn Arg Leu Leu Pro Met Lys Ala Asp Ile Phe Ser Arg
370 375 380

Val Ala Trp Gln Leu Arg Thr Arg Ser Gly Val Asn Ile Tyr Ala Trp
385 390 395 400

Met Pro Val Leu Ser Trp Asp Leu Asp Pro Thr Leu Thr Arg Val Lys
405 410 415

Tyr Leu Pro Thr Gly Glu Lys Lys Ala Gln Ile His Pro Glu Gln Tyr
420 425 430

His Arg Leu Ser Pro Phe Asp Asp Arg Val Arg Ala Gln Val Gly Met
435 440 445

Leu Tyr Glu Asp Leu Ala Gly His Ala Ala Phe Asp Gly Ile Leu Phe
450 455 460

His Asp Asp Ala Leu Leu Ser Asp Tyr Glu Asp Ala Ser Ala Pro Ala
465 470 475 480

Ile Thr Ala Tyr Gln Gln Ala Gly Phe Ser Gly Ser Leu Ser Glu Ile
485 490 495

Arg Gln Asn Pro Glu Gln Phe Lys Gln Trp Ala Arg Phe Lys Ser Arg
500 505 510

Ala Leu Thr Asp Phe Thr Leu Glu Leu Ser Ala
515 520

<210> 54

<211> 220

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (170)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 54

Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu Leu
1 5 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser
20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg
35 40 45

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu

0072664 10100

| | | | | | | |
|---|-----|----|--|-----|--|-----|
| 65 | | 70 | | 75 | | 80 |
| Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser | | | | | | |
| | 85 | | | 90 | | 95 |
| Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu | | | | | | |
| | 100 | | | 105 | | 110 |
| Cys Arg Gln Ala Cys Lys Gln Ala Ser Ser Lys Asn Asp Ile Ser Lys | | | | | | |
| | 115 | | | 120 | | 125 |
| Val Cys Arg Lys Glu Tyr Glu Asn Ala Leu Phe Ser Cys Ile Ser Arg | | | | | | |
| | 130 | | | 135 | | 140 |
| Asn Glu Met Gly Ser Val Cys Cys Ser Tyr Ala Gly His His Thr Asn | | | | | | |
| | 145 | | | 150 | | 155 |
| Cys Arg Glu Tyr Cys Gln Ala Ile Phe Xaa Thr Asp Ser Ser Pro Gly | | | | | | |
| | 165 | | | 170 | | 175 |
| Pro Ser Gln Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser Ile Ser Pro | | | | | | |
| | 180 | | | 185 | | 190 |
| Gln Leu Ile His Cys Val Asn Asn Tyr Thr Gln Ser Tyr Pro Met Arg | | | | | | |
| | 195 | | | 200 | | 205 |
| Asn Pro Thr Asp Ser Arg Ser Val Leu Ser Asp Ile | | | | | | |
| | 210 | | | 215 | | 220 |

<210> 55
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 55
 Met Gly Ala Ala Leu Leu Trp Glu Val Leu Val Gly Gly Thr Arg Ala
 1 5 10 15
 Leu Thr Asn Leu Leu Leu Leu Gly Gly Thr Ser Pro Gly Arg Thr Ser
 20 25 30
 Gln Leu Gln Val Leu Arg Leu Pro Val Ala Ala Glu Pro Val Pro Leu
 35 40 45
 Ala Phe Ser Ser His Asn Gly Glu Gly Asp Phe Gly Ile Leu Thr Asn
 50 55 60
 Ser Ser Leu Gly Leu Ser Leu Leu Pro Ser Thr Ala Ser Arg Phe Ser
 65 70 75 80
 Ser Ile Cys Ala Tyr Tyr Leu Arg Thr Val Ser Ala Pro
 85 90

<210> 56
 <211> 79
 <212> PRT

0010021 120100

<213> Homo sapiens

<400> 56

Met Val Pro Trp Phe Leu Leu Trp Ser Ser Phe Phe Ile Gly Thr Ser
 1 5 10 15
 Ser Ala Tyr Ile Asp Lys Gln Val Lys Ile Val Arg Gln Lys Ser Thr
 20 25 30
 Tyr Trp Gly Glu Lys Phe Leu Lys Arg Cys Glu Arg Glu Arg Ile Lys
 35 40 45
 Glu Ser Glu Gln Ser Gly Lys Arg Gly Glu Leu Arg Glu Arg Gln Gln
 50 55 60
 Lys Ser Asn Glu Ala Gly Cys Ile Tyr Gln Ser Ile Ile Leu Ile
 65 70 75

<210> 57

<211> 74

<212> PRT

<213> Homo sapiens

<400> 57

Met Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Leu Cys
 1 5 10 15
 Pro Gln Leu Ala Trp Trp Gln Val Trp Arg Met Cys Arg Tyr Thr Thr
 20 25 30
 Gly Lys Met Pro Ser Ser Pro Ser Ile Ser Pro Pro Ser Ser Arg Val
 35 40 45
 Pro Gly Ser Leu Met Gly Lys Ser Ser Arg Val Thr Ser Arg Arg Ala
 50 55 60
 Arg Trp Asn Leu Gly Pro Cys Gly Thr Val
 65 70

<210> 58

<211> 446

<212> PRT

<213> Homo sapiens

<400> 58

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val
 1 5 10 15
 Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu
 20 25 30
 Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr
 35 40 45
 Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu
 50 55 60

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| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Thr | Val | Thr | Pro | Glu | Gln | Leu | Gln | Ile | Ala | Glu | Asp | Asn | Leu | Arg | Ala | |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 | |
| Leu | Leu | Ile | Tyr | Ala | Ile | Ser | Ala | Thr | Val | Phe | Thr | Val | Ile | Leu | Phe | |
| | | | | 85 | | | | | 90 | | | | | | 95 | |
| Leu | Ile | Met | Leu | Val | Met | Arg | Lys | Arg | Val | Ala | Leu | Thr | Ile | Ala | Leu | |
| | | | 100 | | | | | 105 | | | | | | 110 | | |
| Phe | His | Val | Ala | Gly | Lys | Val | Phe | Ile | His | Leu | Pro | Leu | Leu | Val | Phe | |
| | | 115 | | | | | 120 | | | | | 125 | | | | |
| Gln | Pro | Phe | Trp | Thr | Phe | Phe | Ala | Leu | Val | Leu | Phe | Trp | Val | Tyr | Trp | |
| | 130 | | | | | 135 | | | | | 140 | | | | | |
| Ile | Met | Thr | Leu | Leu | Phe | Leu | Gly | Thr | Thr | Gly | Ser | Pro | Val | Gln | Asn | |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 | |
| Glu | Gln | Gly | Phe | Val | Glu | Phe | Lys | Ile | Ser | Gly | Pro | Leu | Gln | Tyr | Met | |
| | | | 165 | | | | | | 170 | | | | | 175 | | |
| Trp | Trp | Tyr | His | Val | Val | Gly | Leu | Ile | Trp | Ile | Ser | Glu | Phe | Ile | Leu | |
| | | | 180 | | | | | 185 | | | | | 190 | | | |
| Ala | Cys | Gln | Gln | Met | Thr | Val | Ala | Gly | Ala | Val | Val | Thr | Tyr | Tyr | Phe | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Thr | Arg | Asp | Lys | Arg | Asn | Leu | Pro | Phe | Thr | Pro | Ile | Leu | Ala | Ser | Val | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Asn | Arg | Leu | Ile | Arg | Tyr | His | Leu | Gly | Thr | Val | Ala | Lys | Gly | Ser | Phe | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Ile | Ile | Thr | Leu | Val | Lys | Ile | Pro | Arg | Met | Ile | Leu | Met | Tyr | Ile | His | |
| | | | 245 | | | | | | 250 | | | | | 255 | | |
| Ser | Gln | Leu | Lys | Gly | Lys | Glu | Asn | Ala | Cys | Ala | Arg | Cys | Val | Leu | Lys | |
| | | 260 | | | | | | 265 | | | | | 270 | | | |
| Ser | Cys | Ile | Cys | Cys | Leu | Trp | Cys | Leu | Glu | Lys | Cys | Leu | Asn | Tyr | Leu | |
| | 275 | | | | | | 280 | | | | | 285 | | | | |
| Asn | Gln | Asn | Ala | Tyr | Thr | Ala | Thr | Ala | Ile | Asn | Ser | Thr | Asn | Phe | Cys | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| Thr | Ser | Ala | Lys | Asp | Ala | Phe | Val | Ile | Leu | Val | Glu | Asn | Ala | Leu | Arg | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Val | Ala | Thr | Ile | Asn | Thr | Val | Gly | Asp | Phe | Met | Leu | Phe | Leu | Gly | Lys | |
| | | | 325 | | | | | 330 | | | | | | 335 | | |
| Val | Leu | Ile | Val | Cys | Ser | Thr | Gly | Leu | Ala | Gly | Ile | Met | Leu | Leu | Asn | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Tyr | Gln | Gln | Asp | Tyr | Thr | Val | Trp | Val | Leu | Pro | Leu | Ile | Ile | Val | Cys | |
| | 355 | | | | | | 360 | | | | | 365 | | | | |

007027-120100

Leu Phe Ala Phe Leu Asp Ala His Cys Phe Leu Ser Ile Tyr Glu Met
370 375 380

Val Val Asp Val Leu Phe Leu Cys Phe Ala Ile Asp Thr Lys Tyr Asn
385 390 395 400

Asp Gly Ser Pro Gly Arg Glu Phe Tyr Met Asp Lys Val Leu Met Glu
405 410 415

Phe Val Glu Asn Ser Arg Lys Ala Met Lys Glu Ala Gly Lys Gly Gly
420 425 430

Val Ala Asp Ser Arg Glu Leu Lys Pro Met Leu Lys Lys Arg
435 440 445

<210> 59

<211> 58

<212> PRT

<213> Homo sapiens

<400> 59

Met Leu Phe Phe Tyr Leu Asn Tyr Leu Met Ile Ala Leu Leu Leu Leu
1 5 10 15

Phe Lys Lys Ile Gln Lys Ser Asn Lys Gly Lys Asp Gly Asn Leu Met
20 25 30

Ile Glu Gly Val Ala Cys Val Thr Val Gly Gly Lys Glu Tyr Ile Asp
35 40 45

Phe Ala Leu Val Asp Ile Phe Met Leu Val
50 55

<210> 60

<211> 941

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (807)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (809)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (815)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (819)

0072664-120100

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 60

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Phe | Leu | Pro | Leu | Lys | Trp | Ser | Leu | Ala | Thr | Met | Ser | Phe | Leu |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Ser | Ser | Leu | Leu | Ala | Leu | Leu | Thr | Val | Ser | Thr | Pro | Ser | Trp | Cys |
| | | | 20 | | | | | 25 | | | | | | 30 | |
| Gln | Ser | Thr | Glu | Ala | Ser | Pro | Lys | Arg | Ser | Asp | Gly | Thr | Pro | Phe | Pro |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Trp | Asn | Lys | Ile | Arg | Leu | Pro | Glu | Tyr | Val | Ile | Pro | Val | His | Tyr | Asp |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Leu | Ile | His | Ala | Asn | Leu | Thr | Thr | Leu | Thr | Phe | Trp | Gly | Thr | Thr |
| | 65 | | | | 70 | | | | | 75 | | | | | 80 |
| Lys | Val | Glu | Ile | Thr | Ala | Ser | Gln | Pro | Thr | Ser | Thr | Ile | Ile | Leu | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ser | His | His | Leu | Gln | Ile | Ser | Arg | Ala | Thr | Leu | Arg | Lys | Gly | Ala | Gly |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Glu | Arg | Leu | Ser | Glu | Glu | Pro | Leu | Gln | Val | Leu | Glu | His | Pro | Pro | Gln |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Glu | Gln | Ile | Ala | Leu | Leu | Ala | Pro | Glu | Pro | Leu | Leu | Val | Gly | Leu | Pro |
| | 130 | | | | | 135 | | | | | | 140 | | | |
| Tyr | Thr | Val | Val | Ile | His | Tyr | Ala | Gly | Asn | Leu | Ser | Glu | Thr | Phe | His |
| | 145 | | | | 150 | | | | | 155 | | | | | 160 |
| Gly | Phe | Tyr | Lys | Ser | Thr | Tyr | Arg | Thr | Lys | Glu | Gly | Glu | Leu | Arg | Ile |
| | | | 165 | | | | | | 170 | | | | | 175 | |
| Leu | Ala | Ser | Thr | Gln | Phe | Glu | Pro | Thr | Ala | Ala | Arg | Met | Ala | Phe | Pro |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Cys | Phe | Asp | Glu | Pro | Ala | Phe | Lys | Ala | Ser | Phe | Ser | Ile | Lys | Ile | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Arg | Glu | Pro | Arg | His | Leu | Ala | Ile | Ser | Asn | Met | Pro | Leu | Val | Lys | Ser |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Val | Thr | Val | Ala | Glu | Gly | Leu | Ile | Glu | Asp | His | Phe | Asp | Val | Thr | Val |
| | 225 | | | | 230 | | | | | 235 | | | | | 240 |
| Lys | Met | Ser | Thr | Tyr | Leu | Val | Ala | Phe | Ile | Ile | Ser | Asp | Phe | Glu | Ser |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Val | Ser | Lys | Ile | Thr | Lys | Ser | Gly | Val | Lys | Val | Ser | Val | Tyr | Ala | Val |
| | | | 260 | | | | | 265 | | | | | 270 | | |
| Pro | Asp | Lys | Met | Asn | Gln | Ala | Asp | Tyr | Ala | Leu | Asp | Ala | Ala | Val | Thr |
| | | 275 | | | | | 280 | | | | | 285 | | | |
| Leu | Leu | Glu | Phe | Tyr | Glu | Asp | Tyr | Phe | Ser | Ile | Pro | Tyr | Pro | Leu | Pro |

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| 290 | | | | | 295 | | | | | 300 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Gln | Asp | Leu | Ala | Ala | Ile | Pro | Asp | Phe | Gln | Ser | Gly | Ala | Met | Glu |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 |
| Asn | Trp | Gly | Leu | Thr | Thr | Tyr | Arg | Glu | Ser | Ala | Leu | Leu | Phe | Asp | Ala |
| | | | | 325 | | | | | 330 | | | | | 335 | |
| Glu | Lys | Ser | Ser | Ala | Ser | Ser | Lys | Leu | Gly | Ile | Thr | Met | Thr | Val | Ala |
| | | | 340 | | | | | 345 | | | | | 350 | | |
| His | Glu | Leu | Ala | His | Gln | Trp | Phe | Gly | Asn | Leu | Val | Thr | Met | Glu | Trp |
| | 355 | | | | | | 360 | | | | | 365 | | | |
| Trp | Asn | Asp | Leu | Trp | Leu | Asn | Glu | Gly | Phe | Ala | Lys | Phe | Met | Glu | Phe |
| | 370 | | | | | 375 | | | | | 380 | | | | |
| Val | Ser | Val | Ser | Val | Thr | His | Pro | Glu | Leu | Lys | Val | Gly | Asp | Tyr | Phe |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 |
| Phe | Gly | Lys | Cys | Phe | Asp | Ala | Met | Glu | Val | Asp | Ala | Leu | Asn | Ser | Ser |
| | | | | 405 | | | | | 410 | | | | | 415 | |
| His | Pro | Val | Ser | Thr | Pro | Val | Glu | Asn | Pro | Ala | Gln | Ile | Arg | Glu | Met |
| | | | 420 | | | | | 425 | | | | | 430 | | |
| Phe | Asp | Asp | Val | Ser | Tyr | Asp | Lys | Gly | Ala | Cys | Ile | Leu | Asn | Met | Leu |
| | | 435 | | | | | 440 | | | | | | 445 | | |
| Arg | Glu | Tyr | Leu | Ser | Ala | Asp | Ala | Phe | Lys | Ser | Gly | Ile | Val | Gln | Tyr |
| | 450 | | | | | 455 | | | | | | 460 | | | |
| Leu | Gln | Lys | His | Ser | Tyr | Lys | Asn | Thr | Lys | Asn | Glu | Asp | Leu | Trp | Asp |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 |
| Ser | Met | Ala | Ser | Ile | Cys | Pro | Thr | Asp | Gly | Val | Lys | Gly | Met | Asp | Gly |
| | | | | 485 | | | | | 490 | | | | | 495 | |
| Phe | Cys | Ser | Arg | Ser | Gln | His | Ser | Ser | Ser | Ser | Ser | His | Trp | His | Gln |
| | | | 500 | | | | | 505 | | | | | 510 | | |
| Glu | Gly | Val | Asp | Val | Lys | Thr | Met | Met | Asn | Thr | Trp | Thr | Leu | Gln | Arg |
| | | 515 | | | | | 520 | | | | | | 525 | | |
| Gly | Phe | Pro | Leu | Ile | Thr | Ile | Thr | Val | Arg | Gly | Arg | Asn | Val | His | Met |
| | 530 | | | | | 535 | | | | | 540 | | | | |
| Lys | Gln | Glu | His | Tyr | Met | Lys | Gly | Ser | Asp | Gly | Ala | Pro | Asp | Thr | Gly |
| 545 | | | | | 550 | | | | | 555 | | | | | 560 |
| Tyr | Leu | Trp | His | Val | Pro | Leu | Thr | Phe | Ile | Thr | Ser | Lys | Ser | Asp | Met |
| | | | | 565 | | | | | 570 | | | | | 575 | |
| Val | His | Arg | Phe | Leu | Leu | Lys | Thr | Lys | Thr | Asp | Val | Leu | Ile | Leu | Pro |
| | | | 580 | | | | | 585 | | | | | 590 | | |
| Glu | Glu | Val | Glu | Trp | Ile | Lys | Phe | Asn | Val | Gly | Met | Asn | Gly | Tyr | Tyr |
| | | 595 | | | | | 600 | | | | | 605 | | | |

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Ile Val His Tyr Glu Asp Asp Gly Trp Asp Ser Leu Thr Gly Leu Leu
 610 615 620
 Lys Gly Thr His Thr Ala Val Ser Ser Asn Asp Arg Ala Ser Leu Ile
 625 630 635 640
 Asn Asn Ala Phe Gln Leu Val Ser Ile Gly Lys Leu Ser Ile Glu Lys
 645 650 655
 Ala Leu Asp Leu Ser Leu Tyr Leu Lys His Glu Thr Glu Ile Met Pro
 660 665 670
 Val Phe Gln Gly Leu Asn Glu Leu Ile Pro Met Tyr Lys Leu Met Glu
 675 680 685
 Lys Arg Asp Met Asn Glu Val Glu Thr Gln Phe Lys Ala Phe Leu Ile
 690 695 700
 Arg Leu Leu Arg Asp Leu Ile Asp Lys Gln Thr Trp Thr Asp Glu Gly
 705 710 715 720
 Ser Val Ser Glu Arg Met Leu Arg Ser Glu Leu Leu Leu Leu Ala Cys
 725 730 735
 Val His Asn Tyr Gln Pro Cys Val Gln Arg Ala Glu Gly Tyr Phe Arg
 740 745 750
 Lys Trp Lys Glu Ser Asn Gly Asn Leu Ser Leu Pro Val Asp Val Thr
 755 760 765
 Leu Ala Val Phe Ala Val Gly Ala Gln Ser Thr Glu Gly Trp Asp Phe
 770 775 780
 Leu Tyr Ser Lys Tyr Gln Phe Ser Leu Ser Ser Thr Glu Lys Ser Gln
 785 790 795 800
 Ile Glu Phe Ala Leu Cys Xaa Pro Xaa Asn Lys Glu Lys Leu Xaa Trp
 805 810 815
 Leu Leu Xaa Glu Ser Phe Lys Gly Asp Lys Ile Lys Thr Gln Glu Phe
 820 825 830
 Pro Gln Ile Leu Thr Leu Ile Gly Arg Asn Pro Val Gly Tyr Pro Leu
 835 840 845
 Ala Trp Gln Phe Leu Arg Lys Asn Trp Asn Lys Leu Val Gln Lys Phe
 850 855 860
 Glu Leu Gly Ser Ser Ser Ile Ala His Met Val Met Gly Thr Thr Asn
 865 870 875 880
 Gln Phe Ser Thr Arg Thr Arg Leu Glu Glu Val Lys Gly Phe Phe Ser
 885 890 895
 Ser Leu Lys Glu Asn Gly Ser Gln Leu Arg Cys Val Gln Gln Thr Ile
 900 905 910

001021 "CH92260

Glu Thr Ile Glu Glu Asn Ile Gly Trp Met Asp Lys Asn Phe Asp Lys
915 920 925

Ile Arg Val Trp Leu Gln Ser Glu Lys Leu Glu Arg Met
930 935 940

<210> 61
<211> 549
<212> PRT
<213> Homo sapiens

<400> 61
Met Trp Leu Pro Leu Val Leu Leu Leu Ala Val Leu Leu Leu Ala Val
1 5 10 15

Leu Cys Lys Val Tyr Leu Gly Leu Phe Ser Gly Ser Ser Pro Asn Pro
20 25 30

Phe Ser Glu Asp Val Lys Arg Pro Pro Ala Pro Leu Val Thr Asp Lys
35 40 45

Glu Ala Arg Lys Lys Val Leu Lys Gln Gly Ile His Tyr Ile Gly Arg
50 55 60

Met Glu Glu Gly Ser Ile Gly Arg Phe Ile Leu Asp Gln Ile Thr Glu
65 70 75 80

Gly Gln Leu Asp Trp Ala Pro Leu Ser Ser Pro Phe Asp Ile Met Val
85 90 95

Leu Glu Gly Pro Asn Gly Arg Lys Glu Tyr Pro Met Tyr Ser Gly Glu
100 105 110

Lys Ala Tyr Ile Gln Gly Leu Lys Glu Lys Phe Pro Gln Glu Glu Ala
115 120 125

Ile Ile Asp Lys Tyr Ile Lys Leu Val Lys Val Val Ser Ser Gly Ala
130 135 140

Pro His Ala Ile Leu Leu Lys Phe Leu Pro Leu Pro Val Val Gln Leu
145 150 155 160

Leu Asp Arg Cys Gly Leu Leu Thr Arg Phe Ser Pro Phe Leu Gln Ala
165 170 175

Ser Thr Gln Ser Leu Ala Glu Val Leu Gln Gln Leu Gly Ala Ser Ser
180 185 190

Glu Leu Gln Ala Val Leu Ser Tyr Ile Phe Pro Thr Tyr Gly Val Thr
195 200 205

Pro Asn His Ser Ala Phe Ser Met His Ala Leu Leu Val Asn His Tyr
210 215 220

Met Lys Gly Gly Phe Tyr Pro Arg Gly Gly Ser Ser Glu Ile Ala Phe
225 230 235 240

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His Thr Ile Pro Val Ile Gln Arg Ala Gly Gly Ala Val Leu Thr Lys
 245 250 255
 Ala Thr Val Gln Ser Val Leu Leu Asp Ser Ala Gly Lys Ala Cys Gly
 260 265 270
 Val Ser Val Lys Lys Gly His Glu Leu Val Asn Ile Tyr Cys Pro Ile
 275 280 285
 Val Val Ser Asn Ala Gly Leu Phe Asn Thr Tyr Glu His Leu Leu Pro
 290 295 300
 Gly Asn Ala Arg Cys Leu Pro Gly Val Lys Gln Gln Leu Gly Thr Val
 305 310 315 320
 Arg Pro Gly Leu Gly Met Thr Ser Val Phe Ile Cys Leu Arg Gly Thr
 325 330 335
 Lys Glu Asp Leu His Leu Pro Ser Thr Asn Tyr Tyr Val Tyr Tyr Asp
 340 345 350
 Thr Asp Met Asp Gln Ala Met Glu Arg Tyr Val Ser Met Pro Arg Glu
 355 360 365
 Glu Ala Ala Glu His Ile Pro Leu Leu Phe Phe Ala Phe Pro Ser Ala
 370 375 380
 Lys Asp Pro Thr Trp Glu Asp Arg Phe Pro Gly Arg Ser Thr Met Ile
 385 390 395 400
 Met Leu Ile Pro Thr Ala Tyr Glu Trp Phe Glu Glu Trp Gln Ala Glu
 405 410 415
 Leu Lys Gly Lys Arg Gly Ser Asp Tyr Glu Thr Phe Lys Asn Ser Phe
 420 425 430
 Val Glu Ala Ser Met Ser Val Val Leu Lys Leu Phe Pro Gln Leu Glu
 435 440 445
 Gly Lys Val Glu Ser Val Thr Ala Gly Ser Pro Leu Thr Asn Gln Phe
 450 455 460
 Tyr Leu Ala Ala Pro Arg Gly Ala Cys Tyr Gly Ala Asp His Asp Leu
 465 470 475 480
 Gly Arg Leu His Pro Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro
 485 490 495
 Ile Pro Asn Leu Tyr Leu Thr Gly Gln Asp Ile Phe Thr Cys Gly Leu
 500 505 510
 Val Gly Ala Leu Gln Gly Ala Leu Leu Cys Ser Ser Ala Ile Leu Lys
 515 520 525
 Arg Asn Leu Tyr Ser Asp Leu Lys Asn Leu Asp Ser Arg Ile Arg Ala
 530 535 540
 Gln Lys Lys Lys Asn

0072027 2492260

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<210> 62
<211> 326
<212> PRT
<213> Homo sapiens
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| | | | | | | | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 62 | | | | | | | | | | | | | | | |
| Met | Arg | Thr | Glu | Ala | Gln | Val | Pro | Ala | Leu | Gln | Pro | Pro | Glu | Pro | Gly |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Leu | Glu | Gly | Ala | Met | Gly | His | Arg | Thr | Leu | Val | Leu | Pro | Trp | Val | Leu |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Leu | Thr | Leu | Cys | Val | Thr | Ala | Gly | Thr | Pro | Glu | Val | Trp | Val | Gln | Val |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Arg | Met | Glu | Ala | Thr | Glu | Leu | Ser | Ser | Phe | Thr | Ile | Arg | Cys | Gly | Phe |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Leu | Gly | Ser | Gly | Ser | Ile | Ser | Leu | Val | Thr | Val | Ser | Trp | Gly | Gly | Pro |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Asp | Gly | Ala | Gly | Gly | Thr | Thr | Leu | Ala | Val | Leu | His | Pro | Glu | Arg | Gly |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Ile | Arg | Gln | Trp | Ala | Pro | Ala | Arg | Gln | Ala | Arg | Trp | Glu | Thr | Gln | Ser |
| | | 100 | | | | | | 105 | | | | | 110 | | |
| Ser | Ile | Ser | Leu | Ile | Leu | Glu | Gly | Ser | Gly | Ala | Ser | Ser | Pro | Cys | Ala |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Asn | Thr | Thr | Phe | Cys | Cys | Lys | Phe | Ala | Ser | Phe | Pro | Glu | Gly | Ser | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Glu | Ala | Cys | Gly | Ser | Leu | Pro | Pro | Ser | Ser | Asp | Pro | Gly | Leu | Ser | Ala |
| 145 | | | | | 150 | | | | | 155 | | | | | 160 |
| Pro | Pro | Thr | Pro | Ala | Pro | Ile | Leu | Arg | Ala | Asp | Leu | Ala | Gly | Ile | Leu |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Gly | Val | Ser | Gly | Val | Leu | Leu | Phe | Gly | Cys | Val | Tyr | Leu | Leu | His | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Leu | Arg | Arg | His | Lys | His | Arg | Pro | Ala | Pro | Arg | Leu | Gln | Pro | Ser | Arg |
| | | 195 | | | | | 200 | | | | | 205 | | | |
| Thr | Ser | Pro | Gln | Ala | Pro | Arg | Ala | Arg | Ala | Trp | Ala | Pro | Ser | Gln | Ala |
| | 210 | | | | | 215 | | | | | 220 | | | | |
| Ser | Gln | Ala | Ala | Leu | His | Val | Pro | Tyr | Ala | Thr | Ile | Asn | Thr | Ser | Cys |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 |
| Arg | Pro | Ala | Thr | Leu | Asp | Thr | Ala | His | Pro | His | Gly | Gly | Pro | Ser | Trp |
| | | | | 245 | | | | | 250 | | | | | 255 | |
| Trp | Ala | Ser | Leu | Pro | Thr | His | Ala | Ala | His | Arg | Pro | Gln | Gly | Pro | Ala |

260 265 270

Ala Trp Ala Ser Thr Pro Ile Pro Ala Arg Gly Ser Phe Val Ser Val
275 280 285

Glu Asn Gly Leu Tyr Ala Gln Ala Gly Glu Arg Pro Pro His Thr Gly
290 295 300

Pro Gly Leu Thr Leu Phe Pro Asp Pro Arg Gly Pro Arg Ala Met Glu
305 310 315 320

Gly Pro Leu Gly Val Arg
325

<210> 63
<211> 267
<212> PRT
<213> Homo sapiens

<400> 63

Met Ala Pro Trp Ala Leu Leu Ser Pro Gly Val Leu Val Arg Thr Gly
1 5 10 15

His Thr Val Leu Thr Trp Gly Ile Thr Leu Val Leu Phe Leu His Asp
20 25 30

Thr Glu Leu Arg Gln Trp Glu Glu Gln Gly Glu Leu Leu Leu Pro Leu
35 40 45

Thr Phe Leu Leu Leu Val Leu Gly Ser Leu Leu Leu Tyr Leu Ala Val
50 55 60

Ser Leu Met Asp Pro Gly Tyr Val Asn Val Gln Pro Gln Pro Gln Glu
65 70 75 80

Glu Leu Lys Glu Glu Gln Thr Ala Met Val Pro Pro Ala Ile Pro Leu
85 90 95

Arg Arg Cys Arg Tyr Cys Leu Val Leu Gln Pro Leu Arg Ala Arg His
100 105 110

Cys Arg Glu Cys Arg Arg Cys Val Arg Arg Tyr Asp His His Cys Pro
115 120 125

Trp Met Glu Asn Cys Val Gly Glu Arg Asn His Pro Leu Phe Val Val
130 135 140

Tyr Leu Ala Leu Gln Leu Val Val Leu Leu Trp Gly Leu Tyr Leu Ala
145 150 155 160

Trp Ser Gly Leu Arg Phe Phe Gln Pro Trp Gly Leu Trp Leu Arg Ser
165 170 175

Ser Gly Leu Leu Phe Ala Thr Phe Leu Leu Leu Ser Leu Phe Ser Leu
180 185 190

Val Ala Ser Leu Leu Leu Val Ser His Leu Tyr Leu Val Ala Ser Asn

00700312400

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<210> 64
<211> 62
<212> PRT
<213> Homo sapiens
```

```
<210> 65
<211> 46
<212> PRT
<213> Homo sapiens
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```
<210> 66
<211> 84
<212> PRT
<213> Homo sapiens
```

<400> 66
Met Tyr Leu Gly Arg Arg Trp Phe Phe Leu Tyr Leu Cys Pro Phe Pro
1 5 10 15

Ser Ser Ala Leu Pro Thr Phe Cys Ala Leu Leu His Ala His Thr Ser
 20 25 30

Phe Cys Met Ile Asn Gly Leu Gly His Ala Ala His Ser Leu Ala Tyr
 35 40 45

Glu Thr Phe Thr Leu Ser Ala Glu Gly Ala Arg Asp Pro Pro Lys Ala
 50 55 60

Thr Glu Cys Ser Ile Cys Ser Leu Pro Ser Phe Cys Ile Pro Gly Phe
 65 70 75 80

Cys Ile Leu Phe

<210> 67
 <211> 44
 <212> PRT
 <213> Homo sapiens

<400> 67
 Met Gly Leu Phe Pro Lys Leu Leu Ser Leu Ile Phe Gln Ile Val Tyr
 1 5 10 15

Phe Leu Pro Ser Ala Leu Glu Met Thr Val Ala Ser Pro Ser Cys His
 20 25 30

Phe Cys Asp Ala Leu Glu Ser Leu Phe Phe Ser Asn
 35 40

<210> 68
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 68
 Met Gln Thr Cys Gln Ala Ile Lys Gly Ser Cys Leu Ser Val Ser Leu
 1 5 10 15

Ile Leu Leu Cys Ala Ala Ser Thr Glu Gly Phe Arg Ala Pro Asp Leu
 20 25 30

Phe Cys Val Leu Arg Lys Ser Lys Cys Leu Ala Arg Thr Gln Pro Phe
 35 40 45

Phe Leu His Pro Glu Thr Ser
 50 55

<210> 69
 <211> 83
 <212> PRT
 <213> Homo sapiens

<220>

0070027 12092260

<221> SITE
 <222> (45)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (63)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (78)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 69
 Met Gly His Phe Ala Pro Gly Val Phe His Leu Gly Ile Met Phe Thr
 1 5 10 15
 Gly Leu Ile Pro Val Val Val Cys Ser Ser Pro Ala Phe Leu Pro Val
 20 25 30
 Ala Glu Tyr Leu Ile His Cys Val Gly Ile His His Xaa Leu Val Asp
 35 40 45
 Gly Thr Phe Gly Val Val Phe His Leu Leu Val Met Met Gly Xaa Xaa
 50 55 60
 Pro Gln Gln Thr Phe Val Leu Gln Ser Phe Ala Val Ala Xaa Gly Arg
 65 70 75 80
 Phe Phe Leu

<210> 70
 <211> 434
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (381)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 70
 Met Ala Leu Thr Ala Pro Ser Leu Ser Leu Asp Ala Arg Gln Leu Trp
 1 5 10 15
 Asp Ser Pro Glu Thr Ala Pro Ala Ala Arg Thr Pro Gln Ser Pro Ala
 20 25 30
 Pro Cys Val Leu Leu Arg Ala Gln Arg Ser Leu Ala Pro Glu Pro Lys
 35 40 45

00707 164260

Glu Pro Leu Ile Pro Ala Ser Pro Lys Ala Glu Pro Ile Trp Glu Leu
 50 55 60
 Pro Thr Arg Ala Pro Arg Leu Ser Ile Gly Asp Leu Asp Phe Ser Asp
 65 70 75 80
 Leu Gly Glu Asp Glu Asp Gln Asp Met Leu Asn Val Glu Ser Val Glu
 85 90 95
 Ala Gly Lys Asp Ile Pro Ala Pro Ser Pro Pro Leu Pro Leu Leu Ser
 100 105 110
 Gly Val Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Pro Ile Lys Gly
 115 120 125
 Pro Phe Pro Pro Pro Pro Pro Leu Pro Leu Ala Ala Pro Leu Pro His
 130 135 140
 Ser Val Pro Asp Ser Ser Ala Leu Pro Thr Lys Arg Lys Thr Val Lys
 145 150 155 160
 Leu Phe Trp Arg Glu Leu Lys Leu Ala Gly Gly His Gly Val Ser Ala
 165 170 175
 Ser Arg Phe Gly Pro Cys Ala Thr Leu Trp Ala Ser Leu Asp Pro Val
 180 185 190
 Ser Val Asp Thr Ala Arg Leu Glu His Leu Phe Glu Ser Arg Ala Lys
 195 200 205
 Glu Val Leu Pro Ser Lys Lys Ala Gly Glu Gly Arg Arg Thr Met Thr
 210 215 220
 Thr Val Leu Asp Pro Lys Arg Ser Asn Ala Ile Asn Ile Gly Leu Thr
 225 230 235 240
 Thr Leu Pro Pro Val His Val Ile Lys Ala Ala Leu Leu Asn Phe Asp
 245 250 255
 Glu Phe Ala Val Ser Lys Asp Gly Ile Glu Lys Leu Leu Thr Met Met
 260 265 270
 Pro Thr Glu Glu Glu Arg Gln Lys Ile Glu Glu Ala Gln Leu Ala Asn
 275 280 285
 Pro Asp Ile Pro Leu Gly Pro Ala Glu Asn Phe Leu Met Thr Leu Ala
 290 295 300
 Ser Ile Gly Gly Leu Ala Ala Arg Leu Gln Leu Trp Ala Phe Lys Leu
 305 310 315 320
 Asp Tyr Asp Ser Met Glu Arg Glu Ile Ala Glu Pro Leu Phe Asp Leu
 325 330 335
 Lys Val Gly Met Glu Gln Leu Val Gln Asn Ala Thr Phe Arg Cys Ile
 340 345 350

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Leu Ala Thr Leu Leu Ala Val Gly Asn Phe Leu Asn Gly Ser Gln Ser
355 360 365

Ser Gly Phe Glu Leu Ser Tyr Leu Glu Lys Val Ser Xaa Val Lys Asp
370 375 380

Thr Val Arg Arg Gln Ser Leu Leu His His Leu Cys Ser Leu Val Leu
385 390 395 400

Gln Thr Arg Pro Glu Ser Ser Asp Leu Tyr Ser Glu Ile Pro Ala Leu
405 410 415

Thr Arg Cys Ala Lys Val Ser Thr Cys Gln Asn Gln Pro Arg Pro Asp
420 425 430

Lys Ala

<210> 71
<211> 43
<212> PRT
<213> Homo sapiens

<400> 71
Met Gly Asn Gln Lys Leu Leu Leu Ser Leu Glu Val Leu Pro Gln Leu
1 5 10 15

Leu Leu Val Leu Ile Leu Met Pro Trp Phe Leu Leu Val Gly Lys Gly
20 25 30

His Ser Tyr His Ser Glu Glu Gln Glu Lys Ser
35 40

<210> 72
<211> 322
<212> PRT
<213> Homo sapiens

<400> 72
Met Lys Tyr Ile Phe Ser Leu Leu Phe Phe Leu Leu Leu Glu Gly Gly
1 5 10 15

Lys Thr Glu Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp
20 25 30

Lys Lys Tyr Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr
35 40 45

Gly Leu Val Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val
50 55 60

Leu Cys Ser Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val
65 70 75 80

His Ile Pro His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro
85 90 95

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Pro Val Asn Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr
 100 105 110
 Thr Tyr Gln His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn
 115 120 125
 Arg Gln Pro Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val
 130 135 140
 Tyr Cys Gly Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val
 145 150 155 160
 Ser Val Pro Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu
 165 170 175
 Ser Trp Glu His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg
 180 185 190
 Glu Ala Arg His Ser Tyr His His Ser His Tyr Asp Pro Pro Pro Ser
 195 200 205
 Arg Gln Ala Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg
 210 215 220
 Gly Ala Leu Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile
 225 230 235 240
 Val Ile Asn Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly
 245 250 255
 Lys Thr Tyr Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe
 260 265 270
 Gly Ile Val Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu
 275 280 285
 Cys Lys Lys Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln
 290 295 300
 Lys Ile Asp Gly Lys Cys Cys Lys Val Cys Pro Gly Lys Lys Lys Lys
 305 310 315 320
 Lys Lys

<210> 73
 <211> 306
 <212> PRT
 <213> Homo sapiens

<400> 73
 Met Lys Ala Leu Leu Leu Leu Val Leu Pro Trp Leu Ser Pro Ala Asn
 1 5 10 15
 Tyr Ile Asp Asn Val Gly Asn Leu His Phe Leu Tyr Ser Glu Leu Cys
 20 25 30

0072664-120100

Lys Gly Ala Ser His Tyr Gly Leu Thr Lys Asp Arg Lys Arg Arg Ser
 35 40 45
 Gln Asp Gly Cys Pro Asp Gly Cys Ala Ser Leu Thr Ala Thr Ala Pro
 50 55 60
 Ser Pro Glu Val Ser Ala Ala Ala Thr Ile Ser Leu Met Thr Asp Glu
 65 70 75 80
 Pro Gly Leu Asp Asn Pro Ala Tyr Val Ser Ser Ala Glu Asp Gly Gln
 85 90 95
 Pro Ala Ile Ser Pro Val Asp Ser Gly Arg Ser Asn Arg Thr Arg Ala
 100 105 110
 Arg Pro Phe Glu Arg Ser Thr Ile Arg Ser Arg Ser Phe Lys Lys Ile
 115 120 125
 Asn Arg Ala Leu Ser Val Leu Arg Arg Thr Lys Ser Gly Ser Ala Val
 130 135 140
 Ala Asn His Ala Asp Gln Gly Arg Glu Asn Ser Glu Asn Thr Thr Ala
 145 150 155 160
 Pro Glu Val Phe Pro Arg Leu Tyr His Leu Ile Pro Asp Gly Glu Ile
 165 170 175
 Thr Ser Ile Lys Ile Asn Arg Val Asp Pro Ser Glu Ser Leu Ser Ile
 180 185 190
 Arg Leu Val Gly Gly Ser Glu Thr Pro Leu Val His Ile Ile Ile Gln
 195 200 205
 His Ile Tyr Arg Asp Gly Val Ile Ala Arg Asp Gly Arg Leu Leu Pro
 210 215 220
 Gly Asp Ile Ile Leu Lys Val Asn Gly Met Asp Ile Ser Asn Val Pro
 225 230 235 240
 His Asn Tyr Ala Val Arg Leu Leu Arg Gln Pro Cys Gln Val Leu Trp
 245 250 255
 Leu Thr Val Met Arg Glu Gln Lys Phe Arg Ser Arg Asn Asn Gly Gln
 260 265 270
 Ala Pro Asp Ala Tyr Arg Pro Arg Asp Asp Ser Phe His Val Ile Leu
 275 280 285
 Asn Lys Ser Arg Pro Arg Gly Ala Ala Trp Asn Lys Thr Gly Ala Gln
 290 295 300
 Gly Gly
 305

<210> 74
 <211> 114

0010021" E4992260

<212> PRT

<213> Homo sapiens

<400> 74

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Thr | Arg | Ala | Gly | Ala | Gly | Thr | Ala | Val | Ala | Gly | Ala | Val | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Leu | Leu | Ser | Ala | Ala | Leu | Ala | Leu | Tyr | Gly | Pro | Pro | Leu | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Leu | Glu | Arg | Ala | Phe | Ser | Leu | Arg | Lys | Ala | His | Ser | Ile | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Met | Glu | Asn | Thr | Leu | Gln | Leu | Val | Arg | Asn | Ile | Ile | Pro | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Thr | Lys | His | Lys | Gly | Gln | Asp | Gly | Arg | Ile | Gly | Val | Val | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Gln | Glu | Tyr | Thr | Gly | Ala | Pro | Tyr | Phe | Ala | Glu | Ser | Gln | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Trp | Ala | Gln | Thr | Cys | Pro | Thr | Cys | Ser | Val | Pro | Val | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

His Leu

<210> 75

<211> 114

<212> PRT

<213> Homo sapiens

<400> 75

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Val | Thr | Arg | Ala | Gly | Ala | Gly | Thr | Ala | Val | Ala | Gly | Ala | Val | Val |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | Ala | Leu | Leu | Ser | Ala | Ala | Leu | Ala | Leu | Tyr | Gly | Pro | Pro | Leu | Asp |
| | | | 20 | | | | | 25 | | | | | 30 | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Val | Leu | Glu | Arg | Ala | Phe | Ser | Leu | Arg | Lys | Ala | His | Ser | Ile | Lys |
| | | 35 | | | | | 40 | | | | | 45 | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Asp | Met | Glu | Asn | Thr | Leu | Gln | Leu | Val | Arg | Asn | Ile | Ile | Pro | Pro | Leu |
| | 50 | | | | | 55 | | | | | 60 | | | | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Ser | Thr | Lys | His | Lys | Gly | Gln | Asp | Gly | Arg | Ile | Gly | Val | Val | Gly |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Cys | Gln | Glu | Tyr | Thr | Gly | Ala | Pro | Tyr | Phe | Ala | Glu | Ser | Gln | Leu |
| | | | | 85 | | | | | 90 | | | | | 95 | |

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Lys | Trp | Ala | Gln | Thr | Cys | Pro | Thr | Cys | Ser | Val | Pro | Val | Arg | Pro |
| | | | 100 | | | | | 105 | | | | | 110 | | |

His Leu

007264-13100

<210> 76
 <211> 85
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Tyr Ala Cys Val Cys Arg Val Leu Gln Pro Gly Cys Gly Arg Val
 1 5 10 15
 Leu Val Cys Ala Arg Val Pro Ala Trp Leu Trp Val Cys Val Cys Val
 20 25 30
 Cys Val Cys Val Cys Val Cys Val Leu Ala Ser Gly Ala Val Arg Pro
 35 40 45
 Leu Arg Val Gly Ala Leu Phe Ser Ala His Trp Lys Pro Ser Pro Phe
 50 55 60
 Ser Gln Met Pro Gly Arg Gly Gly Ala Ala Val Gly Thr His Leu Val
 65 70 75 80
 Leu Leu Ser Asp Leu
 85

<210> 77
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 77
 Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu Leu
 1 5 10 15
 Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser
 20 25 30
 Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg
 35 40 45
 Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
 50 55 60
 His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu
 65 70 75 80
 Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser
 85 90 95
 Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu
 100 105 110
 Cys Arg Gln Ala Cys Lys Gln Ala Ser Ser Lys Asn Asp Ile Ser Lys
 115 120 125
 Val Cys Arg Lys Glu Tyr Glu Pro Val Leu Arg Tyr Phe Ser Val Leu

007264-10100

130

135

140

Pro Ser Leu Val Trp Ile Ser Ala Leu Pro
145 150

<210> 78
<211> 161
<212> PRT
<213> Homo sapiens

<400> 78
Met Ala Thr Val Arg Ala Ser Leu Arg Gly Ala Leu Leu Leu Leu Leu
1 5 10 15

Ala Val Ala Gly Val Ala Glu Val Ala Gly Gly Leu Ala Pro Gly Ser
20 25 30

Ala Gly Ala Leu Cys Cys Asn His Ser Lys Asp Asn Gln Met Cys Arg
35 40 45

Asp Val Cys Glu Gln Ile Phe Ser Ser Lys Ser Glu Ser Arg Leu Lys
50 55 60

His Leu Leu Gln Arg Ala Pro Asp Tyr Cys Pro Glu Thr Met Val Glu
65 70 75 80

Ile Trp Asn Cys Met Asn Ser Ser Leu Pro Gly Val Phe Lys Lys Ser
85 90 95

Asp Gly Trp Val Gly Leu Gly Cys Cys Glu Leu Ala Ile Ala Leu Glu
100 105 110

Cys Arg Gln Ala Cys Ser Arg His Leu Gln Arg Met Ile Phe Pro Lys
115 120 125

Phe Ala Glu Lys Asn Met Ser Leu Ser Ser Val Ile Leu Val Cys Phe
130 135 140

Leu Leu Leu Ser Gly Phe Leu His Cys Pro Arg Lys Ser Ala Ser Met
145 150 155 160

Cys

<210> 79
<211> 51
<212> PRT
<213> Homo sapiens

<400> 79
Ala Val Val Pro Thr Trp Cys Ser Thr Val Leu Leu Thr Phe Val Pro
1 5 10 15

Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr Asp Gly
20 25 30

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Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln Gly Thr
 35 40 45

Trp Phe Pro
 50

<210> 80
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 80
 Met Leu Phe Pro Leu Leu Ala Trp Pro His Leu Leu Ser Leu Trp Val
 1 5 10 15

Cys Leu Thr Ala Thr Ser Pro Ser Lys Pro Ser Ala Pro His Ser His
 20 25 30

Gln Met Asp Leu Cys Leu Leu His
 35 40

<210> 81
 <211> 36
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 81
 Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
 1 5 10 15

Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe
 20 25 30

Ala Val Val Gln
 35

<210> 82
 <211> 489
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 82
 Arg Pro Arg Thr Arg Ala Pro Arg Gly Ala Arg Ser Ala Cys Thr Arg
 1 5 10 15

0072643-120100

Gly Xaa Arg Arg Arg Pro Val Pro Ser Leu Lys Val Leu Ser Pro Phe
 20 25 30
 Ala Val Val Gln Met Arg Lys Lys Trp Lys Met Gly Gly Met Lys Tyr
 35 40 45
 Ile Phe Ser Leu Leu Phe Phe Leu Leu Leu Glu Gly Gly Lys Thr Glu
 50 55 60
 Gln Val Lys His Ser Glu Thr Tyr Cys Met Phe Gln Asp Lys Lys Tyr
 65 70 75 80
 Arg Val Gly Glu Arg Trp His Pro Tyr Leu Glu Pro Tyr Gly Leu Val
 85 90 95
 Tyr Cys Val Asn Cys Ile Cys Ser Glu Asn Gly Asn Val Leu Cys Ser
 100 105 110
 Arg Val Arg Cys Pro Asn Val His Cys Leu Ser Pro Val His Ile Pro
 115 120 125
 His Leu Cys Cys Pro Arg Cys Pro Glu Asp Ser Leu Pro Pro Val Asn
 130 135 140
 Asn Lys Val Thr Ser Lys Ser Cys Glu Tyr Asn Gly Thr Thr Tyr Gln
 145 150 155 160
 His Gly Glu Leu Phe Val Ala Glu Gly Leu Phe Gln Asn Arg Gln Pro
 165 170 175
 Asn Gln Cys Thr Gln Cys Ser Cys Ser Glu Gly Asn Val Tyr Cys Gly
 180 185 190
 Leu Lys Thr Cys Pro Lys Leu Thr Cys Ala Phe Pro Val Ser Val Pro
 195 200 205
 Asp Ser Cys Cys Arg Val Cys Arg Gly Asp Gly Glu Leu Ser Trp Glu
 210 215 220
 His Ser Asp Gly Asp Ile Phe Arg Gln Pro Ala Asn Arg Glu Ala Arg
 225 230 235 240
 His Ser Tyr His Arg Ser His Tyr Asp Pro Pro Pro Ser Arg Gln Ala
 245 250 255
 Gly Gly Leu Ser Arg Phe Pro Gly Ala Arg Ser His Arg Gly Ala Leu
 260 265 270
 Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn
 275 280 285
 Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr
 290 295 300
 Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val
 305 310 315 320
 Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys Lys

097236543-120100

335

His Leu Thr Phe Thr Pro Ala Ala Arg Ala Arg Trp Leu Ala Pro Arg
20 25 30

```
<210> 85
<211> 257
<212> PRT
<213> Homo sapiens
```

| | | | | | | | | | | | | | | | |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <400> 85 | | | | | | | | | | | | | | | |
| Val | Cys | Ala | Phe | Val | Thr | Asn | Gln | Arg | Thr | His | Glu | Gln | Met | Gly | Pro |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |
| Ser | Ile | Glu | Ala | Met | Pro | Glu | Thr | Leu | Leu | Ser | Leu | Trp | Gly | Leu | Val |
| | | | 20 | | | | | 25 | | | | | 30 | | |
| Ser | Asp | Val | Pro | Gln | Glu | Leu | Gln | Ala | Val | Ala | Gln | Gln | Phe | Ser | Leu |
| | | 35 | | | | | 40 | | | | | 45 | | | |
| Pro | Gln | Glu | Gln | Val | Ser | Glu | Glu | Leu | Asp | Gly | Val | Gly | Val | Ser | Ile |
| | 50 | | | | | 55 | | | | | 60 | | | | |
| Gly | Ser | Ala | Ile | His | Thr | Gln | Leu | Arg | Ser | Ser | Val | Tyr | Pro | Leu | Leu |
| 65 | | | | | 70 | | | | | 75 | | | | | 80 |
| Ala | Ala | Val | Gly | Ser | Leu | Gly | Gln | Val | Leu | Gln | Val | Ser | Val | His | His |
| | | | | 85 | | | | | 90 | | | | | 95 | |
| Leu | Gln | Thr | Leu | Asn | Ala | Thr | Val | Val | Glu | Leu | Gln | Ala | Gly | Gln | Gln |
| | | | 100 | | | | | 105 | | | | | 110 | | |
| Asp | Leu | Glu | Pro | Ala | Ile | Arg | Glu | His | Arg | Asp | Arg | Leu | Leu | Glu | Leu |
| | | 115 | | | | | 120 | | | | | 125 | | | |
| Leu | Gln | Glu | Ala | Arg | Cys | Gln | Gly | Asp | Cys | Ala | Gly | Ala | Leu | Ser | Trp |
| | 130 | | | | | 135 | | | | | 140 | | | | |
| Ala | Arg | Thr | Leu | Glu | Leu | Gly | Ala | Asp | Phe | Ser | Gln | Val | Pro | Ser | Val |
| 145 | | | | 150 | | | | | | 155 | | | | | 160 |
| Asp | His | Val | Leu | His | Gln | Leu | Lys | Gly | Val | Pro | Glu | Ala | Asn | Phe | Ser |
| | | | | 165 | | | | | 170 | | | | | 175 | |
| Ser | Met | Val | Gln | Glu | Glu | Asn | Ser | Thr | Phe | Asn | Ala | Leu | Pro | Ala | Leu |
| | | | 180 | | | | | 185 | | | | | 190 | | |
| Ala | Ala | Met | Gln | Thr | Ser | Ser | Val | Val | Gln | Glu | Leu | Lys | Lys | Ala | Val |
| | | 195 | | | | | 200 | | | | | 205 | | | |

Ala Gln Gln Pro Glu Gly Val Arg Thr Leu Ala Glu Gly Phe Pro Gly
210 215 220

Leu Glu Ala Ala Ser Arg Trp Ala Gln Ala Leu Gln Glu Val Glu Glu
225 230 235 240

Ser Ser Arg Pro Tyr Leu Gln Glu Val Gln Arg Tyr Glu Thr Tyr Arg
245 250 255

Trp

<210> 86

<211> 287

<212> PRT

<213> Homo sapiens

<400> 86

Val Gly Gly Asn Val Gln Thr Leu Val Cys Arg Ser Trp Glu Asn Gly
1 5 10 15

Glu Leu Phe Glu Phe Ala Asp Thr Pro Gly Asn Leu Pro Pro Ser Met
20 25 30

Asn Leu Ser Gln Leu Leu Gly Leu Arg Lys Asn Ile Ser Ile His Gln
35 40 45

Ala Tyr Gln Gln Cys Lys Glu Gly Ala Ala Leu Trp Thr Val Leu Gln
50 55 60

Leu Asn Asp Ser Tyr Asp Leu Glu Glu His Leu Asp Ile Asn Gln Tyr
65 70 75 80

Thr Asn Lys Leu Arg Gln Glu Leu Gln Ser Leu Lys Val Asp Thr Gln
85 90 95

Ser Leu Asp Leu Leu Ser Ser Ala Ala Arg Arg Asp Leu Glu Ala Leu
100 105 110

Gln Ser Ser Gly Leu Gln Arg Ile His Tyr Pro Asp Phe Leu Val Gln
115 120 125

Ile Gln Arg Pro Val Val Lys Thr Ser Met Glu Gln Leu Ala Gln Glu
130 135 140

Leu Gln Gly Leu Ala Gln Ala Gln Asp Asn Ser Val Leu Gly Gln Arg
145 150 155 160

Leu Gln Glu Glu Ala Gln Gly Leu Arg Asn Leu His Gln Glu Lys Val
165 170 175

Val Pro Gln Gln Ser Leu Val Ala Lys Leu Asn Leu Ser Val Arg Ala
180 185 190

Leu Glu Ser Ser Ala Pro Asn Leu Gln Leu Glu Thr Ser Asp Val Leu
195 200 205

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Ala Asn Val Thr Tyr Leu Lys Gly Glu Leu Pro Ala Trp Ala Ala Arg
210 215 220

Ile Leu Arg Asn Val Ser Glu Cys Phe Leu Ala Arg Glu Met Gly Tyr
225 230 235 240

Phe Ser Gln Tyr Val Ala Trp Val Arg Glu Glu Val Thr Gln Arg Ile
245 250 255

Ala Thr Cys Gln Pro Leu Ser Gly Ala Leu Asp Asn Ser Arg Val Ile
260 265 270

Leu Cys Asp Met Met Ala Asp Pro Trp Asn Ala Phe Trp Phe Cys
275 280 285

<210> 87

<211> 40

<212> PRT

<213> Homo sapiens

<400> 87

Lys Gln Leu His Phe Lys Met Gln Met Thr Val Gly Glu Lys Glu Tyr
1 5 10 15

Pro Val Cys Cys Gln Leu Ile Leu Phe Ser Leu Cys Cys Phe Ile Trp
20 25 30

Glu Glu Leu Phe Leu Tyr Ile Lys
35 40

<210> 88

<211> 70

<212> PRT

<213> Homo sapiens

<400> 88

Ile Ser Lys Lys Asp Pro Gly Glu Ser Leu Gly Met Thr Val Ala Gly
1 5 10 15

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val
20 25 30

Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp
35 40 45

Ile Leu Leu Asn Val Asp Gly Val Arg Thr Asp Arg Gly Gln Pro Gly
50 55 60

Val Arg Gln Trp His Tyr
65 70

<210> 89

<211> 38

<212> PRT

<213> Homo sapiens

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Ile Ser Lys Lys Asp Pro Gly Glu Ser Leu Gly Met Thr Val Ala Gly
1 5 10 15

Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile Tyr Val Ile Ser Val
20 25 30

Glu Pro Gly Gly Val Ile
35

<211> 32

<212> PRT

<213> Homo sapiens

Ser Arg Asp Gly Arg Ile Lys Thr Gly Asp Ile Leu Leu Asn Val Asp
1 5 10 15

Gly Val Arg Thr Asp Arg Gly Gln Pro Gly Val Arg Gln Trp His Tyr
20 25 30

<211> 122

<212> PRT

<213> Homo sapiens

Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val
1 5 10 15

Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly
20 25 30

Gly Val Ala Tyr Arg His Gly Gln Leu Glu Glu Asn Asp Arg Val Leu
35 40 45

Ala Ile Asn Gly His Asp Leu Arg Tyr Gly Ser Pro Glu Ser Ala Ala
50 55 60

His Leu Ile Gln Ala Ser Glu Arg Arg Val His Leu Val Val Ser Arg
65 70 75 80

Gln Val Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu
85 90 95

Gln Gln Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Glu Gln His Ser
100 105 110

Gln Ala Pro Pro Ser Tyr Asn Tyr Leu Ser
115 120

<210> 92
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 92
 Phe Ser Thr Lys Val Gly Pro Glu Glu Gln Leu Gly Ile Lys Leu Val
 1 5 10 15
 Arg Lys Val Asp Glu Pro Gly Val Phe Ile Phe Asn Val Leu Asp Gly
 20 25 30
 Gly Val Ala Tyr Arg His Gly Gln Leu
 35 40

<210> 93
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 93
 Glu Glu Asn Asp Arg Val Leu Ala Ile Asn Gly His Asp Leu Arg Tyr
 1 5 10 15
 Gly Ser Pro Glu Ser Ala Ala His Leu Ile Gln Ala Ser Glu Arg Arg
 20 25 30
 Val His Leu Val Val Ser Arg Gln Val
 35 40

<210> 94
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 94
 Arg Gln Arg Ser Pro Asp Ile Phe Gln Glu Ala Ala Leu Glu Gln Gln
 1 5 10 15
 Trp Gln Leu Val Pro Arg Ala Arg Gly Glu Glu Gln His Ser Gln Ala
 20 25 30
 Pro Pro Ser Tyr Asn Tyr Leu Ser
 35 40

<210> 95
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 95
 Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser
 1 5 10 15

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Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln
20 25 30

Glu Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala
35 40 45

Pro Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro
50 55 60

Arg Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala
65 70 75 80

Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly
85 90 95

Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr
100 105 110

Asn Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly
115 120 125

Arg Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys
130 135 140

Glu Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr
145 150 155 160

Phe Leu

<210> 96

<211> 36

<212> PRT

<213> Homo sapiens

<400> 96

Gln Arg Ser Ala Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser
1 5 10 15

Ser Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln
20 25 30

Glu Asp Cys Ser
35

<210> 97

<211> 41

<212> PRT

<213> Homo sapiens

<400> 97

Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro Pro Ser Asp
1 5 10 15

Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg Cys Leu Tyr
20 25 30

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Asn Cys Lys Asp Ile Val Leu Arg Arg
 35 40

<210> 98
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 98
 Asn Thr Ala Gly Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu
 1 5 10 15

Tyr Asn Gly Asn Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr
 20 25 30

Pro Ala Tyr Asn Asp Gly Arg Ile Arg Cys Gly
 35 40

<210> 99
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 99
 Asp Ile Leu Leu Ala Val Asn Gly Arg Ser Thr Ser Gly Met Ile His
 1 5 10 15

Ala Cys Leu Ala Arg Leu Leu Lys Glu Leu Lys Gly Arg Ile Thr Leu
 20 25 30

Thr Ile Val Ser Trp Pro Gly Thr Phe Leu
 35 40

<210> 100
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 100
 Met Thr Val Ala Gly Gly Ala Ser His Arg Glu Trp Asp Leu Pro Ile
 1 5 10 15

Tyr Val Ile Ser Val Glu Pro Gly Gly Val Ile Ser Arg Asp Gly Arg
 20 25 30

Ile Lys Thr Gly Asp Ile Leu Leu Asn Val Asp Gly Val Glu Leu Thr
 35 40 45

Glu Val Ser Arg Ser Glu Ala Val Ala Leu Leu Lys Arg Thr Ser Ser
 50 55 60

Ser Ile Val Leu Lys Ala Leu Glu Val Lys Glu Tyr Glu Pro Gln Glu
 65 70 75 80

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Asp Cys Ser Ser Pro Ala Ala Leu Asp Ser Asn His Asn Met Ala Pro
85 90 95

Pro Ser Asp Trp Ser Pro Ser Trp Val Met Trp Leu Glu Leu Pro Arg
100 105 110

Cys Leu Tyr Asn Cys Lys Asp Ile Val Leu Arg Arg Asn Thr Ala Gly
115 120 125

Ser Leu Gly Phe Cys Ile Val Gly Gly Tyr Glu Glu Tyr Asn Gly Asn
130 135 140

Lys Pro Phe Phe Ile Lys Ser Ile Val Glu Gly Thr Pro Ala Tyr Asn
145 150 155 160

Asp Gly Arg Ile Arg Cys Gly Asp Ile Leu Leu Ala Val Asn Gly Arg
165 170 175

Ser Thr Ser Gly Met Ile His Ala Cys Leu Ala Arg Leu Leu Lys Glu
180 185 190

Leu Lys Gly Arg Ile Thr Leu Thr Ile Val Ser Trp Pro Gly Thr Phe
195 200 205

Leu

<210> 101

<211> 242

<212> PRT

<213> Homo sapiens

<400> 101

Met Ala Thr Ser Thr Ile Thr Ser Arg Arg Leu Met Ser Gly Phe Leu
1 5 10 15

Phe Leu Pro Val Ser Ser Phe Ser Met Ser Phe Phe Phe Phe Ser Thr
20 25 30

Cys Ser Val Thr Leu Ile Thr Ser Phe Cys Ile Phe Pro Val Ser Val
35 40 45

Ser Phe Phe Ile Ala Val Glu Asn Thr Trp Cys Arg Thr Val Ile Thr
50 55 60

Leu Pro Leu Ser Leu Ser Gly Ala Phe Ser Phe Ser Val Pro Ile Thr
65 70 75 80

Val Ser Leu Ser Val Ser Val Ser Leu Ser Ile Ser Val Phe Leu Ser
85 90 95

Ser Gly Ile Ile Val Pro Leu Leu Ala Gly Val His Lys Thr Arg Pro
100 105 110

Arg Arg Ser Arg Thr Arg Lys Met Gly Lys Gly Asn Ile Ala Ile Trp
115 120 125

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Lys Cys Thr Cys Arg Thr Thr Ile Ile Thr Arg Gly Met Ser Thr Phe
130 135 140

Tyr Cys Trp Tyr Lys Arg Trp Arg Trp Ser Ala Trp Trp Arg Arg Lys
145 150 155 160

Thr Arg Trp Trp Asn Gln Arg Trp Ser Ser Ala Asp Ser Arg Arg Arg
165 170 175

Trp Lys Lys Trp Arg Arg Trp Lys Val Ser Gly Arg Ser Ser Trp Arg
180 185 190

Glu Lys Arg Arg Trp Phe Ala Lys Ile Val Val Tyr Phe Ser Ser Arg
195 200 205

Ser Phe Arg Lys Asp Leu Tyr Val Ala Val Leu Ile Cys Pro Ser Pro
210 215 220

Ala Phe Tyr Ser Ala Asp Ser Tyr Ser Leu Thr Asp Asn Ile Asn Cys
225 230 235 240

Pro Arg

<210> 102

<211> 520

<212> PRT

<213> Homo sapiens

<400> 102

Met Ser Ala Gly Glu Val Glu Arg Leu Val Ser Glu Leu Ser Gly Gly
1 5 10 15

Thr Gly Gly Asp Glu Glu Glu Glu Trp Leu Tyr Gly Asp Glu Asn Glu
20 25 30

Val Glu Arg Pro Glu Glu Glu Asn Ala Ser Ala Asn Pro Pro Ser Gly
35 40 45

Ile Glu Asp Glu Thr Ala Glu Asn Gly Leu Pro Lys Pro Lys Val Thr
50 55 60

Glu Thr Glu Asp Asp Ser Asp Ser Asp Ser Asp Asp Asp Glu Asp Asp
65 70 75 80

Val His Val Thr Ile Gly Asp Ile Lys Thr Gly Ala Pro Gln Tyr Gly
85 90 95

Ser Tyr Gly Thr Ala Pro Val Asn Leu Asn Ile Lys Thr Gly Gly Arg
100 105 110

Val Tyr Gly Thr Thr Gly Thr Lys Val Lys Gly Val Asp Leu Asp Ala
115 120 125

Pro Gly Ser Ile Asn Gly Val Pro Leu Leu Glu Val Asp Leu Asp Ser
130 135 140

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Phe Glu Asp Lys Pro Trp Arg Lys Pro Gly Ala Asp Leu Ser Asp Tyr
 145 150 155 160
 Phe Asn Tyr Gly Phe Asn Glu Asp Thr Trp Lys Ala Tyr Cys Glu Lys
 165 170 175
 Gln Lys Arg Ile Arg Met Gly Leu Glu Val Ile Pro Val Thr Ser Thr
 180 185 190
 Thr Asn Lys Ile Thr Val Gln Gln Gly Arg Thr Gly Asn Ser Glu Lys
 195 200 205
 Glu Thr Ala Leu Pro Ser Thr Lys Ala Glu Phe Thr Ser Pro Pro Ser
 210 215 220
 Leu Phe Lys Thr Gly Leu Pro Pro Ser Arg Arg Leu Pro Gly Ala Ile
 225 230 235 240
 Asp Val Ile Gly Gln Thr Ile Thr Ile Ser Arg Val Glu Gly Arg Arg
 245 250 255
 Arg Ala Asn Glu Asn Ser Asn Ile Gln Val Leu Ser Glu Arg Ser Ala
 260 265 270
 Thr Glu Val Asp Asn Asn Phe Ser Lys Pro Pro Pro Phe Phe Pro Pro
 275 280 285
 Gly Ala Pro Pro Thr His Leu Pro Pro Pro Pro Phe Leu Pro Pro Pro
 290 295 300
 Pro Thr Val Ser Thr Ala Pro Pro Leu Ile Pro Pro Pro Gly Phe Pro
 305 310 315 320
 Pro Pro Pro Gly Ala Pro Pro Pro Ser Leu Ile Pro Thr Ile Glu Ser
 325 330 335
 Gly His Ser Ser Gly Tyr Asp Ser Arg Ser Ala Arg Ala Phe Pro Tyr
 340 345 350
 Gly Asn Val Ala Phe Pro His Leu Pro Gly Ser Ala Pro Ser Trp Pro
 355 360 365
 Ser Leu Val Asp Thr Ser Lys Gln Trp Asp Tyr Tyr Ala Arg Arg Glu
 370 375 380
 Lys Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp
 385 390 395 400
 Arg Asp Arg Glu Arg Glu Arg Thr Arg Glu Arg Glu Arg Glu Arg Asp
 405 410 415
 His Ser Pro Thr Pro Ser Val Phe Asn Ser Asp Glu Glu Arg Tyr Arg
 420 425 430
 Tyr Arg Glu Tyr Ala Glu Arg Gly Tyr Glu Arg His Arg Ala Ser Arg
 435 440 445
 Glu Lys Glu Glu Arg His Arg Glu Arg Arg His Arg Glu Lys Glu Glu

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450 455 460

Thr Arg His Lys Ser Ser Arg Ser Asn Ser Arg Arg Arg His Glu Ser
465 470 475 480

Glu Glu Gly Asp Ser His Arg Arg His Lys His Lys Lys Ser Lys Arg
 485 490 495

Ser Lys Glu Gly Lys Glu Ala Gly Ser Glu Pro Ala Pro Glu Gln Glu
 500 505 510

Ser Thr Glu Ala Thr Pro Ala Glu
 515 520

<210> 103
<211> 205
<212> PRT
<213> Homo sapiens

<400> 103
Met Ile Val Val Leu His Val His Phe His Met Ala Met Leu Pro Phe
1 5 10 15

Pro Ile Phe Leu Val Leu Leu Leu Arg Gly Leu Val Leu Trp Thr Pro
 20 25 30

Ala Ser Ser Gly Thr Ile Met Pro Glu Glu Arg Lys Thr Glu Ile Glu
 35 40 45

Arg Glu Thr Glu Thr Glu Ser Glu Thr Val Ile Gly Thr Glu Lys Glu
50 55 60

Asn Ala Pro Glu Arg Glu Arg Gly Ser Val Ile Thr Val Leu His Gln
65 70 75 80

Val Phe Ser Thr Ala Met Lys Asn Asp Thr Asp Thr Gly Asn Met Gln
 85 90 95

Lys Glu Val Met Ser Val Thr Glu Gln Val Glu Lys Lys Lys Asn Asp
100 105 110

Ile Glu Lys Asp Asp Thr Gly Arg Lys Arg Lys Pro Asp Ile Ser Leu
115 120 125

Leu Glu Val Ile Val Asp Val Ala Met Lys Val Lys Lys Glu Ile Val
130 135 140

Thr Gly Asp Thr Asn Thr Lys Asn Leu Lys Glu Ala Lys Lys Glu Lys
145 150 155 160

Lys Arg Ala Val Ser Leu Pro Leu Asn Arg Arg Ala Pro Lys Leu His
 165 170 175

Leu Gln Asn Arg His Gly Phe Gly Leu Leu Cys Ile Leu Val Pro Glu
180 185 190

Val Asp Thr Ile Asn Leu Val Ile Phe Leu Asp Asn Ala

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195

200

205

<210> 104

<211> 26

<212> PRT

<213> Homo sapiens

<400> 104

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro
 1 5 10 15

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala
 20 25

<210> 105

<211> 494

<212> PRT

<213> Homo sapiens

<400> 105

His Ala Ser Ala His Gly Pro Arg Pro Ser Val Arg Thr Gly Leu Pro
 1 5 10 15

Ser Val Gly Arg Gln Ala Ala Gly Ala Ala Met Gly Arg Gly Trp Gly
 20 25 30

Phe Leu Phe Gly Leu Leu Gly Ala Val Trp Leu Leu Ser Ser Gly His
 35 40 45

Gly Glu Glu Gln Pro Pro Glu Thr Ala Ala Gln Arg Cys Phe Cys Gln
 50 55 60

Val Ser Gly Tyr Leu Asp Asp Cys Thr Cys Asp Val Glu Thr Ile Asp
 65 70 75 80

Arg Phe Asn Asn Tyr Arg Leu Phe Pro Arg Leu Gln Lys Leu Leu Glu
 85 90 95

Ser Asp Tyr Phe Arg Tyr Tyr Lys Val Asn Leu Lys Arg Pro Cys Pro
 100 105 110

Phe Trp Asn Asp Ile Ser Gln Cys Gly Arg Arg Asp Cys Ala Val Lys
 115 120 125

Pro Cys Gln Ser Asp Glu Val Pro Asp Gly Ile Lys Ser Ala Ser Tyr
 130 135 140

Lys Tyr Ser Glu Glu Ala Asn Asn Leu Ile Glu Glu Cys Glu Gln Ala
 145 150 155 160

Glu Arg Leu Gly Ala Val Asp Glu Ser Leu Ser Glu Glu Thr Gln Lys
 165 170 175

Ala Val Leu Gln Trp Thr Lys His Asp Asp Ser Ser Asp Asn Phe Cys
 180 185 190

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| | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Glu | Ala | Asp | Asp | Ile | Gln | Ser | Pro | Glu | Ala | Glu | Tyr | Val | Asp | Leu | Leu | |
| | | 195 | | | | | 200 | | | | | 205 | | | | |
| Leu | Asn | Pro | Glu | Arg | Tyr | Thr | Gly | Tyr | Lys | Gly | Pro | Asp | Ala | Trp | Lys | |
| | 210 | | | | | 215 | | | | | 220 | | | | | |
| Ile | Trp | Asn | Val | Ile | Tyr | Glu | Glu | Asn | Cys | Phe | Lys | Pro | Gln | Thr | Ile | |
| 225 | | | | | 230 | | | | | 235 | | | | | 240 | |
| Lys | Arg | Pro | Leu | Asn | Pro | Leu | Ala | Ser | Gly | Gln | Gly | Thr | Ser | Glu | Glu | |
| | | | | 245 | | | | | 250 | | | | | 255 | | |
| Asn | Thr | Phe | Tyr | Ser | Trp | Leu | Glu | Gly | Leu | Cys | Val | Glu | Lys | Arg | Ala | |
| | | | 260 | | | | | 265 | | | | | 270 | | | |
| Phe | Tyr | Arg | Leu | Ile | Ser | Gly | Leu | His | Ala | Ser | Ile | Asn | Val | His | Leu | |
| | 275 | | | | | | 280 | | | | | 285 | | | | |
| Ser | Ala | Arg | Tyr | Leu | Leu | Gln | Glu | Thr | Trp | Leu | Glu | Lys | Lys | Trp | Gly | |
| | 290 | | | | | 295 | | | | | 300 | | | | | |
| His | Asn | Ile | Thr | Glu | Phe | Gln | Gln | Arg | Phe | Asp | Gly | Ile | Leu | Thr | Glu | |
| 305 | | | | | 310 | | | | | 315 | | | | | 320 | |
| Gly | Glu | Gly | Pro | Arg | Arg | Leu | Lys | Asn | Leu | Tyr | Phe | Leu | Tyr | Leu | Ile | |
| | | | | 325 | | | | | 330 | | | | | 335 | | |
| Glu | Leu | Arg | Ala | Leu | Ser | Lys | Val | Leu | Pro | Phe | Phe | Glu | Arg | Pro | Asp | |
| | | | 340 | | | | | 345 | | | | | 350 | | | |
| Phe | Gln | Leu | Phe | Thr | Gly | Asn | Lys | Ile | Gln | Asp | Glu | Glu | Asn | Lys | Met | |
| | 355 | | | | | | 360 | | | | | 365 | | | | |
| Leu | Leu | Leu | Glu | Ile | Leu | His | Glu | Ile | Lys | Ser | Phe | Pro | Leu | His | Phe | |
| | 370 | | | | | 375 | | | | | 380 | | | | | |
| Asp | Glu | Asn | Ser | Phe | Phe | Ala | Gly | Asp | Lys | Lys | Glu | Ala | His | Lys | Leu | |
| 385 | | | | | 390 | | | | | 395 | | | | | 400 | |
| Lys | Glu | Asp | Phe | Arg | Leu | His | Phe | Arg | Asn | Ile | Ser | Arg | Ile | Met | Asp | |
| | | | | 405 | | | | | 410 | | | | | 415 | | |
| Cys | Val | Gly | Cys | Phe | Lys | Cys | Arg | Leu | Trp | Gly | Lys | Leu | Gln | Thr | Gln | |
| | | | 420 | | | | | 425 | | | | | 430 | | | |
| Gly | Leu | Gly | Thr | Ala | Leu | Lys | Ile | Leu | Phe | Ser | Glu | Lys | Leu | Ile | Ala | |
| | | 435 | | | | | 440 | | | | | 445 | | | | |
| Asn | Met | Pro | Glu | Ser | Gly | Pro | Ser | Tyr | Glu | Phe | His | Leu | Thr | Arg | Gln | |
| | 450 | | | | | 455 | | | | | 460 | | | | | |
| Glu | Ile | Val | Ser | Leu | Phe | Asn | Ala | Phe | Gly | Arg | Ile | Ser | Thr | Ser | Val | |
| 465 | | | | | 470 | | | | | 475 | | | | | 480 | |
| Lys | Glu | Leu | Glu | Asn | Phe | Arg | Asn | Leu | Leu | Gln | Asn | Ile | His | | | |
| | | | | 485 | | | | | 490 | | | | | | | |

<210> 106
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 106
 Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val
 1 5 10 15
 Arg Ser Ile Pro Phe Gly Pro Gly
 20

<210> 107
 <211> 289
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (144)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (246)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (252)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 107
 Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys
 1 5 10 15
 Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys
 20 25 30
 Asn Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe
 35 40 45
 Cys Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe
 50 55 60
 Cys Ala Ser Ala Ala Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu
 65 70 75 80
 Ile Val His Pro Val Leu Asp Ser Pro Asn Ala Val His Glu Val Glu
 85 90 95
 Lys Trp Leu Pro Arg Leu His Ala Leu Val Val Gly Pro Gly Leu Gly
 100 105 110
 Arg Asp Asp Ala Leu Leu Arg Asn Val Gln Gly Ile Leu Glu Val Ser
 115 120 125

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Lys Ala Arg Asp Ile Pro Val Val Ile Asp Ala Asp Gly Leu Trp Xaa
130 135 140

Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys Ala Val Leu
145 150 155 160

Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala Val Leu Arg
165 170 175

Gly Pro Met Asp Ser Asp Asp Ser His Gly Ser Val Leu Arg Leu Ser
180 185 190

Gln Ala Leu Gly Asn Val Thr Val Val Gln Lys Gly Glu Arg Asp Ile
195 200 205

Leu Ser Asn Gly Gln Gln Val Leu Val Cys Ser Gln Glu Gly Ser Ser
210 215 220

Ala Gly Val Glu Gly Lys Gly Thr Ser Cys Arg Ala Pro Trp Ala Ser
225 230 235 240

Trp Tyr Thr Gly Arg Xaa Leu Leu Asp His Arg Xaa Gln Met Gly Pro
245 250 255

Ala Leu Ser Trp Trp Pro Arg Leu Ala Pro Ala Leu Ser Pro Gly Ser
260 265 270

Ala Thr Thr Lys Pro Ser Arg Ser Thr Val Ala Pro Pro Pro Pro Pro
275 280 285

Thr

<210> 108

<211> 33

<212> PRT

<213> Homo sapiens

<400> 108

Ser Thr Phe Asp Lys Gly Tyr Gly Lys Tyr Phe Ala Ala Gly Glu Lys
1 5 10 15

Tyr His Thr Ser Ser Val Phe His Lys Ala Gln Arg Ala Arg Trp Lys
20 25 30

Asn

<210> 109

<211> 36

<212> PRT

<213> Homo sapiens

<400> 109

Arg Arg Ser Trp Arg Leu Ser Gly Val His Trp Ser Pro Ile Phe Cys
1 5 10 15

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Arg Ile Ser Ala Leu Lys Val Gly Ala Asp Leu Ser His Val Phe Cys
 20 25 30

Ala Ser Ala Ala
 35

<210> 110
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 110
 Ala Pro Val Ile Lys Ala Tyr Ser Pro Glu Leu Ile Val His Pro Val
 1 5 10 15

Leu Asp Ser Pro Asn Ala Val His Glu Val Glu Lys Trp Leu Pro Arg
 20 25 30

Leu His Ala Leu
 35

<210> 111
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 111
 Val Val Gly Pro Gly Leu Gly Arg Asp Asp Ala Leu Leu Arg Asn Val
 1 5 10 15

Gln Gly Ile Leu Glu Val Ser Lys Ala Arg Asp Ile Pro Val Val Ile
 20 25 30

Asp Ala Asp Gly
 35

<210> 112
 <211> 36
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (3)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 112
 Leu Trp Xaa Val Ala Gln Gln Pro Ala Leu Ile His Gly Tyr Arg Lys
 1 5 10 15

Ala Val Leu Thr Pro Asn His Val Glu Phe Ser Arg Leu Tyr Asp Ala
 20 25 30

Val Leu Arg Gly

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<210> 113
<211> 36
<212> PRT
<213> Homo sapiens
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<210> 114
<211> 36
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (33)
<223> Xaa equals any of the naturally occurring L-amino acids
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<210> 115
<211> 40
<212> PRT
<213> Homo sapiens
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<400> 115
His Arg Xaa Gln Met Gly Pro Ala Leu Ser Trp Trp Pro Arg Leu Ala
1 5 10 15

Val Ala Pro Pro Pro Pro Pro Thr

35

40

<210> 116
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 116
 Cys Cys Arg Asn Ser Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val
 1 5 10 15
 Arg Ser Ile Pro Phe Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly
 20 25 30
 Thr Ala Val Ala Gly Ala Val Val Val Ala Leu Leu Ser Ala Ala Leu
 35 40 45
 Ala Leu Tyr Gly Pro Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser
 50 55 60
 Leu Arg Lys Ala His Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu
 65 70 75 80
 Val Arg Asn Ile Ile Pro Pro Leu Ser Ser Thr Lys His Lys Gly Gln
 85 90 95
 Asp Gly Arg Ile Gly Val Val Gly Gly Cys Gln Glu Tyr Thr Gly Ala
 100 105 110
 Pro Tyr Phe Ala Glu Ser Gln Leu Ser Lys Trp Ala Gln Thr Cys Pro
 115 120 125
 Thr Cys Ser Val Pro Val Arg Pro His Leu
 130 135

<210> 117
 <211> 366
 <212> PRT
 <213> Homo sapiens

<400> 117
 Ala Arg Gly Gln Ser Gly Leu Ala Asp Glu Val Arg Ser Ile Pro Phe
 1 5 10 15
 Gly Pro Gly Met Val Thr Arg Ala Gly Ala Gly Thr Ala Val Ala Gly
 20 25 30
 Ala Val Val Val Ala Leu Leu Ser Ala Ala Leu Ala Leu Tyr Gly Pro
 35 40 45
 Pro Leu Asp Ala Val Leu Glu Arg Ala Phe Ser Leu Arg Lys Ala His
 50 55 60
 Ser Ile Lys Asp Met Glu Asn Thr Leu Gln Leu Val Arg Asn Ile Ile
 65 70 75 80

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<210> 118
<211> 12
<212> PRT
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<213> Homo sapiens

<400> 118

Gly Thr Ser Ala Ala Leu Glu Pro Pro Gly Pro Asp
1 5 10

<210> 119

<211> 83

<212> PRT

<213> Homo sapiens

<400> 119

Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met
1 5 10 15

Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys
20 25 30

Arg Glu Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro
35 40 45

Ser Gln Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser Ile Ser Pro Gln
50 55 60

Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu Ser Asn Glu Glu
65 70 75 80

Pro Asn Gly

<210> 120

<211> 34

<212> PRT

<213> Homo sapiens

<400> 120

Arg Thr Arg Gln Glu Arg Met Leu Phe Ser Val Ala Leu Ala Glu Met
1 5 10 15

Lys Trp Ala Arg Phe Val Ala Val Met Gln Gly His His Thr Asn Cys
20 25 30

Arg Glu

<210> 121

<211> 26

<212> PRT

<213> Homo sapiens

<400> 121

Tyr Cys Gln Ala Ile Phe Arg Thr Asp Ser Ser Pro Gly Pro Ser Gln
1 5 10 15

Ile Lys Ala Val Glu Asn Tyr Cys Ala Ser

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20

25

<210> 122
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 122
 Ile Ser Pro Gln Leu Ile His Cys Val Asn Asn Tyr Thr Ser Ile Leu
 1 5 10 15

Ser Asn Glu Glu Pro Asn Gly
 20

<210> 123
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 123
 His Glu Arg Cys Pro Ala Pro Val Pro Ser Val Asn Pro Leu Ser Leu
 1 5 10 15

Trp Cys Trp Phe Arg Ser Arg Leu Gln Gln Asn Asp Leu Gly Thr Ser
 20 25 30

<210> 124
 <211> 59
 <212> PRT
 <213> Homo sapiens

<400> 124
 His Glu Pro Ser Gln Leu Pro Arg Pro His Ser Ser Thr Gly Trp Ser
 1 5 10 15

Gly Arg Lys Trp Ala Leu Lys Thr Gly Phe Ser Ala Ser Ala Ser Arg
 20 25 30

Lys Pro Glu Pro Trp Arg Cys Arg Ala Thr Val Cys Pro Pro Arg Val
 35 40 45

Thr Thr Ala Ser Ala Ser Ala Gln Ser Ala Asp
 50 55

<210> 125
 <211> 487
 <212> PRT
 <213> Homo sapiens

<400> 125
 Ala Arg Ala Glu Pro Ala Pro Glu Thr Pro Phe Ile Tyr Arg Leu Glu

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| 1 | 5 | 10 | 15 |
|---|-----|-----|-----|
| Arg Gln Glu Val Gly Ser Glu Asp Trp Ile Gln Cys Phe Ser Ile Glu | 20 | 25 | 30 |
| Lys Ala Gly Ala Val Glu Val Pro Gly Asp Cys Val Pro Ser Glu Gly | 35 | 40 | 45 |
| Asp Tyr Arg Phe Arg Ile Cys Thr Val Ser Gly His Gly Arg Ser Pro | 50 | 55 | 60 |
| His Val Val Phe His Gly Ser Ala His Leu Val Pro Thr Ala Arg Leu | 65 | 70 | 75 |
| Val Ala Gly Leu Glu Asp Val Gln Val Tyr Asp Gly Glu Asp Ala Val | 85 | 90 | 95 |
| Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln Gly Thr Trp Phe Leu Asn | 100 | 105 | 110 |
| Gly Glu Glu Leu Lys Ser Asn Glu Pro Glu Gly Gln Val Glu Pro Gly | 115 | 120 | 125 |
| Ala Leu Arg Tyr Arg Ile Glu Gln Lys Gly Leu Gln His Arg Leu Ile | 130 | 135 | 140 |
| Leu His Ala Val Lys His Gln Asp Ser Gly Ala Leu Val Gly Phe Ser | 145 | 150 | 155 |
| Cys Pro Gly Val Gln Asp Ser Ala Ala Leu Thr Ile Gln Glu Ser Pro | 165 | 170 | 175 |
| Val His Ile Leu Ser Pro Gln Asp Lys Val Ser Leu Thr Phe Thr Thr | 180 | 185 | 190 |
| Ser Glu Arg Val Val Leu Thr Cys Glu Leu Ser Arg Val Asp Phe Pro | 195 | 200 | 205 |
| Ala Thr Trp Tyr Lys Asp Gly Gln Lys Val Glu Glu Ser Glu Leu Leu | 210 | 215 | 220 |
| Val Val Lys Met Asp Gly Arg Lys His Arg Leu Ile Leu Pro Glu Ala | 225 | 230 | 235 |
| Lys Val Gln Asp Ser Gly Glu Phe Glu Cys Arg Thr Glu Gly Val Ser | 245 | 250 | 255 |
| Ala Phe Phe Gly Val Thr Val Gln Asp Pro Pro Val His Ile Val Asp | 260 | 265 | 270 |
| Pro Arg Glu His Val Phe Val His Ala Ile Thr Ser Glu Cys Val Met | 275 | 280 | 285 |
| Leu Ala Cys Glu Val Asp Arg Glu Asp Ala Pro Val Arg Trp Tyr Lys | 290 | 295 | 300 |
| Asp Gly Gln Glu Val Glu Glu Ser Asp Phe Val Val Leu Glu Asn Glu | 305 | 310 | 315 |
| | | | 320 |

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Glu Val Pro Gly Asp Cys Val Pro Ser Glu Gly Asp Tyr Arg Phe Arg

1 5 10 15
 Ile Cys Thr Val Ser Gly His Gly Arg Ser Pro His Val Val Phe His
 20 25 30

Gly Ser Ala His Leu
 35

<210> 128
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 128
 Val Pro Thr Ala Arg Leu Val Ala Gly Leu Glu Asp Val Gln Val Tyr
 1 5 10 15

Asp Gly Glu Asp Ala Val Phe Ser Leu Asp Leu Ser Thr Ile Ile Gln
 20 25 30

Gly Thr Trp Phe Leu
 35

<210> 129
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 129
 Asn Gly Glu Glu Leu Lys Ser Asn Glu Pro Glu Gly Gln Val Glu Pro
 1 5 10 15

Gly Ala Leu Arg Tyr Arg Ile Glu Gln Lys Gly Leu Gln His Arg Leu
 20 25 30

Ile Leu His Ala Val
 35

<210> 130
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 130
 Lys His Gln Asp Ser Gly Ala Leu Val Gly Phe Ser Cys Pro Gly Val
 1 5 10 15

Gln Asp Ser Ala Ala Leu Thr Ile Gln Glu Ser Pro Val His Ile Leu
 20 25 30

Ser Pro Gln Asp Lys
 35

<210> 131

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<211> 37
 <212> PRT
 <213> Homo sapiens

<400> 131
 Val Ser Leu Thr Phe Thr Thr Ser Glu Arg Val Val Leu Thr Cys Glu
 1 5 10 15
 Leu Ser Arg Val Asp Phe Pro Ala Thr Trp Tyr Lys Asp Gly Gln Lys
 20 25 30
 Val Glu Glu Ser Glu
 35

<210> 132
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 132
 Leu Leu Val Val Lys Met Asp Gly Arg Lys His Arg Leu Ile Leu Pro
 1 5 10 15
 Glu Ala Lys Val Gln Asp Ser Gly Glu Phe Glu Cys Arg Thr Glu Gly
 20 25 30
 Val Ser Ala Phe Phe
 35

<210> 133
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 133
 Gly Val Thr Val Gln Asp Pro Pro Val His Ile Val Asp Pro Arg Glu
 1 5 10 15
 His Val Phe Val His Ala Ile Thr Ser Glu Cys Val Met Leu Ala Cys
 20 25 30
 Glu Val Asp Arg Glu
 35

<210> 134
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 134
 Asp Ala Pro Val Arg Trp Tyr Lys Asp Gly Gln Glu Val Glu Glu Ser
 1 5 10 15
 Asp Phe Val Val Leu Glu Asn Glu Gly Pro His Arg Arg Leu Val Leu
 20 25 30

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Pro Ala Thr His Pro
35

<210> 135
<211> 37
<212> PRT
<213> Homo sapiens

<400> 135
Ser Asp Gly Gly Glu Phe Gln Cys Val Ala Gly Asp Glu Cys Ala Tyr
1 5 10 15
Phe Thr Val Thr Ile Thr Asp Val Ser Ser Trp Ile Val Tyr Pro Ser
20 25 30

Gly Lys Val Tyr Val
35

<210> 136
<211> 37
<212> PRT
<213> Homo sapiens

<400> 136
Ala Ala Val Arg Leu Glu Arg Val Val Leu Thr Cys Glu Leu Cys Arg
1 5 10 15
Pro Trp Ala Glu Val Arg Trp Thr Lys Asp Gly Glu Glu Val Val Glu
20 25 30

Ser Pro Ala Leu Leu
35

<210> 137
<211> 37
<212> PRT
<213> Homo sapiens

<400> 137
Leu Gln Lys Glu Asp Thr Val Arg Arg Leu Val Leu Pro Ala Val Gln
1 5 10 15
Leu Glu Asp Ser Gly Glu Tyr Leu Cys Glu Ile Asp Asp Glu Ser Ala
20 25 30

Ser Phe Thr Val Thr
35

<210> 138
<211> 43
<212> PRT
<213> Homo sapiens

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<400> 138

Val Thr Glu Ser Tyr Gln Ser Gln Asp Ser Ser Asn Asn Asn Pro Glu
 1 5 10 15

Leu Cys Val Leu Leu Lys Lys Pro Lys Thr Arg Arg Leu Trp Ser Arg
 20 25 30

Phe Pro Pro Trp Arg Arg Thr Ala Gly Thr Glu
 35 40

<210> 139

<211> 510

<212> PRT

<213> Homo sapiens

<400> 139

His Glu Ser Glu Tyr Thr Thr Ser Pro Lys Ser Ser Val Leu Cys Pro
 1 5 10 15

Lys Leu Pro Val Pro Ala Ser Ala Pro Ile Pro Phe Phe His Arg Cys
 20 25 30

Ala Pro Val Asn Ile Ser Cys Tyr Ala Lys Phe Ala Glu Ala Leu Ile
 35 40 45

Thr Phe Val Ser Asp Asn Ser Val Leu His Arg Leu Ile Ser Gly Val
 50 55 60

Met Thr Ser Lys Glu Ile Ile Leu Gly Leu Cys Leu Leu Ser Leu Val
 65 70 75 80

Leu Ser Met Ile Leu Met Val Ile Ile Arg Tyr Ile Ser Arg Val Leu
 85 90 95

Val Trp Ile Leu Thr Ile Leu Val Ile Leu Gly Ser Leu Gly Gly Thr
 100 105 110

Gly Val Leu Trp Trp Pro Tyr Ala Lys Gln Arg Arg Ser Pro Lys Glu
 115 120 125

Thr Val Thr Pro Glu Gln Leu Gln Ile Ala Glu Asp Asn Leu Arg Ala
 130 135 140

Leu Leu Ile Tyr Ala Ile Ser Ala Thr Val Phe Thr Val Ile Leu Phe
 145 150 155 160

Leu Ile Met Leu Val Met Arg Lys Arg Val Ala Leu Thr Ile Ala Leu
 165 170 175

Phe His Val Ala Gly Lys Val Phe Ile His Leu Pro Leu Leu Val Phe
 180 185 190

Gln Pro Phe Trp Thr Phe Phe Ala Leu Val Leu Phe Trp Val Tyr Trp
 195 200 205

Ile Met Thr Leu Leu Phe Leu Gly Thr Thr Gly Ser Pro Val Gln Asn
 210 215 220

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<210> 140
<211> 17
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<212> PRT
<213> Homo sapiens

<400> 140
Arg Leu Ser Ala Val Gly Ala Val Pro Phe Thr Arg Pro Asp Ala Gly
1 5 10 15

Val

<210> 141
<211> 7
<212> PRT
<213> Homo sapiens

<400> 141
Val Gly Pro Arg Ala Glu Ala
1 5

<210> 142
<211> 25
<212> PRT
<213> Homo sapiens

<400> 142
Gly Thr Arg Arg Ser Trp Gly Met Cys Arg Ala Thr Ala Gly Trp Ser
1 5 10 15

Pro Ala Glu Pro Pro Leu His Leu Trp
20 25

<210> 143
<211> 267
<212> PRT
<213> Homo sapiens

<400> 143
His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr
1 5 10 15

Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu
20 25 30

Val Asp Ala Ala Gly Arg Trp Pro Gly Val Cys Val Ser Arg Thr Ser
35 40 45

Pro Thr Pro Pro Glu Ser Ala Thr Thr Val Lys Ser Leu Ile Lys Ser
50 55 60

Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly Gln Asn Ile Ser Val His
65 70 75 80

Lys Thr Pro Arg Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro
85 90 95

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Ala Ala Ala Val Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val
100 105 110

Arg Pro Ala Ser Arg Gly Val Thr Gln Arg Leu Asp Leu Pro Asp Leu
115 120 125

Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys Pro Asp
130 135 140

Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg Pro Pro
145 150 155 160

Ser Leu Gly Phe Gly Asp Thr Arg Leu Leu Ser Ala Ser Thr Arg Ala
165 170 175

Trp Lys Pro Gln Ser Lys Leu Ser Val Glu Arg Lys Asp Pro Leu Ala
180 185 190

Ala Leu Ala Arg Glu Tyr Gly Gly Ser Lys Arg Asn Ala Leu Leu Lys
195 200 205

Trp Cys Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu
210 215 220

Ala Phe Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu
225 230 235 240

Ser Glu Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln
245 250 255

Tyr Val Ala Gln Ile Tyr Lys Tyr Phe Glu Thr
260 265

<210> 144

<211> 42

<212> PRT

<213> Homo sapiens

<400> 144

His Glu Lys Glu Leu Gly Asp Val Gln Gly His Gly Arg Val Val Thr
1 5 10 15

Ser Arg Ala Ala Pro Pro Pro Val Asp Glu Glu Pro Glu Ser Ser Glu
20 25 30

Val Asp Ala Ala Gly Arg Trp Pro Gly Val
35 40

<210> 145

<211> 42

<212> PRT

<213> Homo sapiens

<400> 145

Cys Val Ser Arg Thr Ser Pro Thr Pro Pro Glu Ser Ala Thr Thr Val
1 5 10 15

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Lys Ser Leu Ile Lys Ser Phe Asp Leu Gly Arg Pro Gly Gly Ala Gly
 20 25 30

Gln Asn Ile Ser Val His Lys Thr Pro Arg
 35 40

<210> 146
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 146
 Ser Pro Leu Ser Gly Ile Pro Val Arg Thr Ala Pro Ala Ala Val
 1 5 10 15

Ser Pro Met Gln Arg His Ser Thr Tyr Ser Ser Val Arg Pro Ala Ser
 20 25 30

Arg Gly Val Thr Gln Arg Leu Asp Leu Pro
 35 40

<210> 147
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 147
 Asp Leu Pro Leu Ser Asp Ile Leu Lys Gly Arg Thr Glu Thr Leu Lys
 1 5 10 15

Pro Asp Pro His Leu Arg Lys Ser Pro Ser Leu Glu Ser Leu Ser Arg
 20 25 30

Pro Pro Ser Leu Gly Phe Gly Asp Thr Arg
 35 40

<210> 148
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 148
 Leu Leu Ser Ala Ser Thr Arg Ala Trp Lys Pro Gln Ser Lys Leu Ser
 1 5 10 15

Val Glu Arg Lys Asp Pro Leu Ala Ala Leu Ala Arg Glu Tyr Gly Gly
 20 25 30

Ser Lys Arg Asn Ala Leu Leu Lys Trp Cys
 35 40

<210> 149
 <211> 57

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<212> PRT

<213> Homo sapiens

<400> 149

Gln Lys Lys Thr Gln Gly Tyr Ala Lys Arg Asn Leu Leu Leu Ala Phe
 1 5 10 15

Glu Ala Ala Glu Ser Val Gly Ile Lys Pro Ser Leu Glu Leu Ser Glu
 20 25 30

Met Leu Tyr Thr Asp Arg Pro Asp Trp Gln Ser Val Met Gln Tyr Val
 35 40 45

Ala Gln Ile Tyr Lys Tyr Phe Glu Thr
 50 55

<210> 150

<211> 19

<212> PRT

<213> Homo sapiens

<400> 150

Ser Val Ser Lys Leu Pro Ala Asn Gly Lys Asn Val Asp Asp Val Ile
 1 5 10 15

Arg Asn Gln

<210> 151

<211> 138

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (110)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 151

Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly
 1 5 10 15

Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Gly Cys Leu Gly
 20 25 30

Gly Trp Leu Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu
 35 40 45

Val Arg Gln Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln
 50 55 60

Gly Ser Asp Thr Gly Glu Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn
 65 70 75 80

Pro Val Ala Arg Gly His His Phe Gln Gly Cys Trp Glu Gly Pro Gln
 85 90 95

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Ser Arg Val Ser Ala Ser Leu Trp His Gly His Ser Gly Xaa Pro Ser
100 105 110

Leu His Ala Pro Pro Thr Ser Ala Ser His Pro Phe His Phe Leu Pro
115 120 125

Thr Thr Met His Leu His Ser Glu Ser Ser
130 135

<210> 152

<211> 35

<212> PRT

<213> Homo sapiens

<400> 152

Thr Ser Met Thr Leu Phe Arg Ala Asp Thr Val Lys Asn Ile Glu Gly
1 5 10 15

Glu Leu Thr Gln Ser Ala Arg Leu Gly Cys Gly Gly Gly Cys Leu Gly
20 25 30

Gly Trp Leu
35

<210> 153

<211> 35

<212> PRT

<213> Homo sapiens

<400> 153

Gln Phe His Leu Thr Val Ser Ser Phe Ser Gly Phe Glu Val Arg Gln
1 5 10 15

Leu His Ala Gly Gly Ala Arg Lys Ala Glu Ser Arg Gln Gly Ser Asp
20 25 30

Thr Gly Glu
35

<210> 154

<211> 35

<212> PRT

<213> Homo sapiens

<400> 154

Arg Ala Cys Asp Leu Leu Ala Asp Thr Asn Pro Val Ala Arg Gly His
1 5 10 15

His Phe Gln Gly Cys Trp Glu Gly Pro Gln Ser Arg Val Ser Ala Ser
20 25 30

Leu Trp His
35

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<210> 155
 <211> 33
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (5)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 155
 Gly His Ser Gly Xaa Pro Ser Leu His Ala Pro Pro Thr Ser Ala Ser
 1 5 10 15
 His Pro Phe His Phe Leu Pro Thr Thr Met His Leu His Ser Glu Ser
 20 25 30

Ser

<210> 156
 <211> 107
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (43)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (53)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 156
 Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
 1 5 10 15
 Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
 20 25 30
 Ser Ser Ser Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu
 35 40 45
 Ser Gln Pro Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn
 50 55 60
 Leu Thr Lys Glu Ala Gln Ser His Phe Val Leu Pro Ser Pro His Ile
 65 70 75 80
 Pro Arg Thr Thr Ala Tyr Phe Lys Arg Thr Gln Thr Ile His Leu Tyr
 85 90 95
 Lys Gly Thr Ala Arg Lys Arg Ser Arg Gln Arg
 100 105

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<210> 157
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 157
 Glu Arg Ala Ser Ala Trp Pro Gly His Ser Pro Phe Ser Cys Thr Leu
 1 5 10 15
 Arg His Pro Lys Thr Leu Ala Val Ser Pro Ala Pro Val Tyr Leu Leu
 20 25 30
 Ser Ser Ser
 35

<210> 158
 <211> 35
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (8)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 158
 Ala Leu Phe Leu Pro Leu Thr Xaa Leu Pro Gly Ile Leu Ser Gln Pro
 1 5 10 15
 Glu Xaa Asn Pro Asn Arg Asn Glu Met Leu Ser Gly Asn Leu Thr Lys
 20 25 30
 Glu Ala Gln
 35

<210> 159
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 159
 Ser His Phe Val Leu Pro Ser Pro His Ile Pro Arg Thr Thr Ala Tyr
 1 5 10 15
 Phe Lys Arg Thr Gln Thr Ile His Leu Tyr Lys Gly Thr Ala Arg Lys
 20 25 30
 Arg Ser Arg Gln Arg
 35

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<210> 160
 <211> 47
 <212> PRT
 <213> Homo sapiens

<400> 160
 Lys Val Pro Asn Pro Leu Val Val Thr Ser Ile His Pro Thr Leu Ala
 1 5 10 15
 Gln Leu Gln Ile Ala Thr Arg Ser His Ser Ser Ser Cys Cys Leu Tyr
 20 25 30
 Arg Phe Ser Asn Ser Gly His Phe Ile Ser Met Glu Ser Tyr Asn
 35 40 45

<210> 161
 <211> 218
 <212> PRT
 <213> Homo sapiens

<400> 161
 Gly Pro Ser Trp Pro Leu Trp Pro Arg Ser Ser Leu Gly Pro Cys Leu
 1 5 10 15
 Val Tyr Arg Val Trp Gly Asp Ser Met Cys Thr Pro Leu Leu Ser Gln
 20 25 30
 Val Asp Phe Glu Gln Leu Thr Glu Asn Leu Gly Gln Leu Glu Arg Arg
 35 40 45
 Ser Arg Ala Ala Glu Glu Ser Leu Arg Thr Trp Pro Ser Met Ser Trp
 50 55 60
 Pro Gln Pro Cys Val Pro Ala Ser Pro Thr Ser Trp Thr Ser Val Pro
 65 70 75 80
 Ala Arg Val Ala Met Leu Arg Ile Val His Arg Arg Val Cys Asn Arg
 85 90 95
 Phe His Ala Phe Leu Leu Tyr Leu Gly Tyr Thr Pro Gln Ala Ala Arg
 100 105 110
 Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg Glu Phe Ala Leu
 115 120 125
 Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln Gln Gln Lys Gln
 130 135 140
 Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu
 145 150 155 160
 Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe
 165 170 175
 Leu Arg Ser Ser Gln Leu Thr Leu Leu Ser Pro Asp Arg Glu Val

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<211> 36
 <212> PRT
 <213> Homo sapiens

<400> 165
 Gln Ala Ala Arg Glu Val Arg Ile Met Gln Phe Cys His Thr Leu Arg
 1 5 10 15
 Glu Phe Ala Leu Glu Tyr Arg Thr Cys Arg Glu Arg Val Leu Gln Gln
 20 25 30
 Gln Gln Lys Gln
 35

<210> 166
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 166
 Ala Thr Tyr Arg Glu Arg Asn Lys Thr Arg Gly Arg Met Ile Thr Glu
 1 5 10 15
 Val Gly Ala Leu Pro Gly Leu Ser Leu Asp Cys His Leu Leu Gly Phe
 20 25 30
 Leu Arg Ser Ser
 35

<210> 167
 <211> 38
 <212> PRT
 <213> Homo sapiens

<400> 167
 Gln Leu Thr Leu Leu Leu Ser Pro Asp Arg Glu Val Leu Arg Cys Gly
 1 5 10 15
 Trp Gly Ser Pro Gln Gln Pro Leu Cys Pro Ser Ser Ser Glu Gln Arg
 20 25 30
 Ala Arg Pro Gly Arg Cys
 35

<210> 168
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 168
 Gly Ala Leu Leu Pro Gly Pro Gly Ser Ser Pro Phe Ser Pro Phe Gly
 1 5 10 15
 Leu Leu Cys Gln Gly Leu Leu Gln Pro Pro Gly Cys Glu Leu Cys Pro
 20 25 30

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Leu Pro Glu
35

<210> 169

<211> 702

<212> PRT

<213> Homo sapiens

<400> 169

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 5 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser
20 25 30

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln
35 40 45

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu
50 55 60

Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn Pro Ser Val Val Phe Ser
65 70 75 80

Ser Asn Glu Asp Leu Glu Val Gly Asp Gln Gln Thr Ser Leu Ile Ser
85 90 95

Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu Val Ala Val Glu Asp Asn
100 105 110

Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu Asp
115 120 125

Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn Trp
130 135 140

Gly Val Arg Arg Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro
145 150 155 160

Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu
165 170 175

Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser Glu Glu Glu Ala Ala Leu
180 185 190

Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln Met Leu Asn Ser Asp Ser
195 200 205

Ala Thr Asp Glu Thr Ile Pro Asp His Pro Asp Leu Leu Leu Gln Ser
210 215 220

Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln Ile Arg
225 230 235 240

Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn Ser Arg
245 250 255

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Leu Pro Glu Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr
 260 265 270
 Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln Glu Gln Gln Glu Ser Leu
 275 280 285
 Val Cys Gln Gly Ile Leu Asp Leu Glu Glu Thr Glu Met Pro Glu Pro
 290 295 300
 Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val Cys Glu Glu Asp Val Thr
 305 310 315 320
 Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys Glu Glu Glu Glu Ala Asp
 325 330 335
 Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp Gly Phe Pro
 340 345 350
 Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser Ala Ile Ile
 355 360 365
 Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg
 370 375 380
 Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val
 385 390 395 400
 Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys
 405 410 415
 Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu
 420 425 430
 Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu
 435 440 445
 Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser
 450 455 460
 Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu
 465 470 475 480
 His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu
 485 490 495
 Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile
 500 505 510
 Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu
 515 520 525
 His Phe Gln Leu Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn
 530 535 540
 Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu
 545 550 555 560

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Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser
565 570 575

Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu
580 585 590

Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile
595 600 605

Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp
610 615 620

Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile
625 630 635 640

Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile
645 650 655

Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu
660 665 670

Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu
675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly
690 695 700

<210> 170

<211> 37

<212> PRT

<213> Homo sapiens

<400> 170

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 5 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser
20 25 30

Gly Ser Asn Ser Asn
35

<210> 171

<211> 37

<212> PRT

<213> Homo sapiens

<400> 171

Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln Leu Ser Gln Arg Arg
1 5 10 15

Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser
20 25 30

Gly Leu Pro Lys Asn
35

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<210> 172
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 172
 Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln
 1 5 10 15
 Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu
 20 25 30
 Val Ala Val Glu Asp
 35

<210> 173
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 173
 Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu
 1 5 10 15
 Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn
 20 25 30
 Trp Gly Val Arg Arg
 35

<210> 174
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 174
 Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu
 1 5 10 15
 Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu
 20 25 30
 Asp Thr Asp Glu Ser
 35

<210> 175
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 175
 Ser Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr
 1 5 10 15

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Gln Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His
 20 25 30

Pro Asp Leu Leu Leu
 35

<210> 176
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 176
 Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln
 1 5 10 15

Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn
 20 25 30

Ser Arg Leu Pro Glu
 35

<210> 177
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 177
 Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr Phe Glu Asp
 1 5 10 15

Glu Gly Ser Tyr Ile Ile Gln Glu Gln Gln Glu Ser Leu Val Cys Gln
 20 25 30

Gly Ile Leu Asp Leu
 35

<210> 178
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 178
 Glu Glu Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu
 1 5 10 15

Ser Val Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu
 20 25 30

Arg Cys Glu Glu Glu
 35

<210> 179
 <211> 37

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<212> PRT
<213> Homo sapiens

<400> 179
Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp
1 5 10 15
Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser
20 25 30
Ala Ile Ile Ala Ala
35

<210> 180
<211> 37
<212> PRT
<213> Homo sapiens

<400> 180
Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg Cys His
1 5 10 15
Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val Phe Thr
20 25 30
Phe His Val Phe Ser
35

<210> 181
<211> 37
<212> PRT
<213> Homo sapiens

<400> 181
Arg Leu Phe Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu
1 5 10 15
Ala Val Ser Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe
20 25 30
Lys Ser Ser Leu Glu
35

<210> 182
<211> 37
<212> PRT
<213> Homo sapiens

<400> 182
Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu
1 5 10 15
Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu
20 25 30

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Glu Leu Gln Glu His
35

<210> 183
<211> 37
<212> PRT
<213> Homo sapiens

<400> 183
Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu Asp
1 5 10 15

Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile Asn
20 25 30

Thr Asp Ala Gln Glu
35

<210> 184
<211> 37
<212> PRT
<213> Homo sapiens

<400> 184
Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu Leu
1 5 10 15

Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys
20 25 30

Asn Glu Ala Glu Val
35

<210> 185
<211> 37
<212> PRT
<213> Homo sapiens

<400> 185
Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu
1 5 10 15

Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala
20 25 30

Gln Thr Thr Ile Glu
35

<210> 186
<211> 37
<212> PRT
<213> Homo sapiens

<400> 186

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Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile
1 5 10 15

Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp
20 25 30

Ile Phe Gly Ser Cys
35

<210> 187

<211> 37

<212> PRT

<213> Homo sapiens

<400> 187

Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile Tyr Phe His His Gln
1 5 10 15

Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile Gly Ser Asn Leu Asp
20 25 30

Met Ser Glu Ala Asn
35

<210> 188

<211> 36

<212> PRT

<213> Homo sapiens

<400> 188

Tyr Lys Leu Met Glu Leu Asn Leu Glu Ile Arg Glu Ser Leu Arg Met
1 5 10 15

Val Gln Ser Tyr Gln Leu Leu Ala Gln Ala Lys Pro Met Gly Asn Met
20 25 30

Val Ser Thr Gly
35

<210> 189

<211> 703

<212> PRT

<213> Homo sapiens

<400> 189

Gly Thr Ser Lys Tyr Gly Asp Gln His Ser Ala Ala Gly Arg Asn Gly
1 5 10 15

Lys Pro Lys Val Ile Ala Val Thr Arg Ser Thr Ser Ser Thr Ser Ser
20 25 30

Gly Ser Asn Ser Asn Ala Leu Val Pro Val Ser Trp Lys Arg Pro Gln
35 40 45

Leu Ser Gln Arg Arg Thr Arg Glu Lys Leu Met Asn Val Leu Ser Leu

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| 50 | 55 | 60 |
|---|-----|-------------|
| Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn Pro Ser Val Val Phe Ser | | |
| 65 | 70 | 75 80 |
| Ser Asn Glu Asp Leu Glu Val Gly Asp Gln Gln Thr Ser Leu Ile Ser | | |
| | 85 | 90 95 |
| Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu Val Ala Val Glu Asp Asn | | |
| | 100 | 105 110 |
| Ser Ser Glu Gln Gln Phe Gly Val Phe Lys Asp Phe Asp Phe Leu Asp | | |
| | 115 | 120 125 |
| Val Glu Leu Glu Asp Ala Glu Gly Glu Ser Met Asp Asn Phe Asn Trp | | |
| | 130 | 135 140 |
| Gly Val Arg Arg Arg Ser Leu Asp Ser Ile Asp Lys Gly Asp Thr Pro | | |
| | 145 | 150 155 160 |
| Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser Thr Pro Ser Leu Asn Leu | | |
| | 165 | 170 175 |
| Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser Glu Glu Glu Ala Ala Leu | | |
| | 180 | 185 190 |
| Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln Met Leu Asn Ser Asp Ser | | |
| | 195 | 200 205 |
| Ala Thr Asp Glu Thr Ile Pro Asp His Pro Asp Leu Leu Leu Gln Ser | | |
| | 210 | 215 220 |
| Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu Glu Val Leu Gln Ile Arg | | |
| | 225 | 230 235 240 |
| Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu Asp Asn Ala Asn Ser Arg | | |
| | 245 | 250 255 |
| Leu Pro Glu Asp Thr Thr Ser Val Leu Lys Glu Glu His Val Thr Thr | | |
| | 260 | 265 270 |
| Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln Glu Gln Gln Glu Ser Leu | | |
| | 275 | 280 285 |
| Val Cys Gln Gly Ile Leu Asp Leu Glu Glu Thr Glu Met Pro Glu Pro | | |
| | 290 | 295 300 |
| Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val Cys Glu Glu Asp Val Thr | | |
| | 305 | 310 315 320 |
| Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys Glu Glu Glu Glu Ala Asp | | |
| | 325 | 330 335 |
| Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu Glu Gln Asp Gly Phe Pro | | |
| | 340 | 345 350 |
| Glu Val Gln Thr Ser Pro Leu Pro Ser Pro Phe Leu Ser Ala Ile Ile | | |
| | 355 | 360 365 |

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Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp Glu Glu Glu Ala Trp Arg
 370 375 380
 Cys His Val Asn Gln Met Leu Ser Asp Thr Asp Gly Ser Ser Ala Val
 385 390 395 400
 Phe Thr Phe His Val Phe Ser Arg Leu Phe Gln Thr Ile Gln Arg Lys
 405 410 415
 Phe Gly Glu Ile Thr Asn Glu Ala Val Ser Phe Leu Gly Asp Ser Leu
 420 425 430
 Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser Leu Glu Val Met Met Leu
 435 440 445
 Cys Ser Glu Cys Pro Thr Val Phe Val Asp Ala Glu Thr Leu Met Ser
 450 455 460
 Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly Val Leu Glu Leu Gln Glu
 465 470 475 480
 His Leu Asp Thr Tyr Asn Val Lys Arg Glu Ala Ala Glu Gln Trp Leu
 485 490 495
 Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys Glu Asp Met Tyr Arg Ile
 500 505 510
 Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys Arg Arg Leu Tyr Lys Leu
 515 520 525
 His Phe Gln Leu Leu Leu Leu Phe Gln Ala Tyr Cys Lys Leu Ile Asn
 530 535 540
 Gln Val Asn Thr Ile Lys Asn Glu Ala Glu Val Ile Asn Met Ser Glu
 545 550 555 560
 Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys Glu Ala Glu Ser Ala Ser
 565 570 575
 Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala Ala Gln Thr Thr Ile Glu
 580 585 590
 Thr Ala Ile His Ser Leu Ile Glu Thr Leu Lys Asn Lys Glu Phe Ile
 595 600 605
 Ser Ala Val Ala Gln Val Lys Ala Phe Arg Ser Leu Trp Pro Ser Asp
 610 615 620
 Ile Phe Gly Ser Cys Glu Asp Asp Pro Val Gln Thr Leu Ile His Ile
 625 630 635 640
 Tyr Phe His His Gln Thr Leu Gly Gln Thr Gly Ser Phe Ala Val Ile
 645 650 655
 Gly Ser Asn Leu Asp Met Ser Glu Ala Asn Tyr Lys Leu Met Glu Leu
 660 665 670

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Asn Leu Glu Ile Arg Glu Ser Leu Arg Met Val Gln Ser Tyr Gln Leu
675 680 685

Leu Ala Gln Ala Lys Pro Met Gly Asn Met Val Ser Thr Gly Phe
690 695 700

<210> 190

<211> 645

<212> PRT

<213> Homo sapiens

<400> 190

Met Asn Val Leu Ser Leu Cys Gly Pro Glu Ser Gly Leu Pro Lys Asn
1 5 10 15

Pro Ser Val Val Phe Ser Ser Asn Glu Asp Leu Glu Val Gly Asp Gln
20 25 30

Gln Thr Ser Leu Ile Ser Thr Thr Glu Asp Ile Asn Gln Glu Glu Glu
35 40 45

Val Ala Val Glu Asp Asn Ser Ser Glu Gln Gln Phe Gly Val Phe Lys
50 55 60

Asp Phe Asp Phe Leu Asp Val Glu Leu Glu Asp Ala Glu Gly Glu Ser
65 70 75 80

Met Asp Asn Phe Asn Trp Gly Val Arg Arg Arg Ser Leu Asp Ser Ile
85 90 95

Asp Lys Gly Asp Thr Pro Ser Leu Gln Glu Tyr Gln Cys Ser Ser Ser
100 105 110

Thr Pro Ser Leu Asn Leu Thr Asn Gln Glu Asp Thr Asp Glu Ser Ser
115 120 125

Glu Glu Glu Ala Ala Leu Thr Ala Ser Gln Ile Leu Ser Arg Thr Gln
130 135 140

Met Leu Asn Ser Asp Ser Ala Thr Asp Glu Thr Ile Pro Asp His Pro
145 150 155 160

Asp Leu Leu Leu Gln Ser Glu Asp Ser Thr Gly Ser Ile Thr Thr Glu
165 170 175

Glu Val Leu Gln Ile Arg Asp Glu Thr Pro Thr Leu Glu Ala Ser Leu
180 185 190

Asp Asn Ala Asn Ser Arg Leu Pro Glu Asp Thr Thr Ser Val Leu Lys
195 200 205

Glu Glu His Val Thr Thr Phe Glu Asp Glu Gly Ser Tyr Ile Ile Gln
210 215 220

Glu Gln Gln Glu Ser Leu Val Cys Gln Gly Ile Leu Asp Leu Glu Glu
225 230 235 240

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Thr Glu Met Pro Glu Pro Leu Ala Pro Glu Ser Tyr Pro Glu Ser Val
 245 250 255
 Cys Glu Glu Asp Val Thr Leu Ala Leu Lys Glu Leu Asp Glu Arg Cys
 260 265 270
 Glu Glu Glu Glu Ala Asp Phe Ser Gly Leu Ser Ser Gln Asp Glu Glu
 275 280 285
 Glu Gln Asp Gly Phe Pro Glu Val Gln Thr Ser Pro Leu Pro Ser Pro
 290 295 300
 Phe Leu Ser Ala Ile Ile Ala Ala Phe Gln Pro Val Ala Tyr Asp Asp
 305 310 315 320
 Glu Glu Glu Ala Trp Arg Cys His Val Asn Gln Met Leu Ser Asp Thr
 325 330 335
 Asp Gly Ser Ser Ala Val Phe Thr Phe His Val Phe Ser Arg Leu Phe
 340 345 350
 Gln Thr Ile Gln Arg Lys Phe Gly Glu Ile Thr Asn Glu Ala Val Ser
 355 360 365
 Phe Leu Gly Asp Ser Leu Gln Arg Ile Gly Thr Lys Phe Lys Ser Ser
 370 375 380
 Leu Glu Val Met Met Leu Cys Ser Glu Cys Pro Thr Val Phe Val Asp
 385 390 395 400
 Ala Glu Thr Leu Met Ser Cys Gly Leu Leu Glu Thr Leu Lys Phe Gly
 405 410 415
 Val Leu Glu Leu Gln Glu His Leu Asp Thr Tyr Asn Val Lys Arg Glu
 420 425 430
 Ala Ala Glu Gln Trp Leu Asp Asp Cys Lys Arg Thr Phe Gly Ala Lys
 435 440 445
 Glu Asp Met Tyr Arg Ile Asn Thr Asp Ala Gln Glu Leu Glu Leu Cys
 450 455 460
 Arg Arg Leu Tyr Lys Leu His Phe Gln Leu Leu Leu Phe Gln Ala
 465 470 475 480
 Tyr Cys Lys Leu Ile Asn Gln Val Asn Thr Ile Lys Asn Glu Ala Glu
 485 490 495
 Val Ile Asn Met Ser Glu Glu Leu Ala Gln Leu Glu Ser Ile Leu Lys
 500 505 510
 Glu Ala Glu Ser Ala Ser Glu Asn Glu Glu Ile Asp Ile Ser Lys Ala
 515 520 525
 Ala Gln Thr Thr Ile Glu Thr Ala Ile His Ser Leu Ile Glu Thr Leu
 530 535 540
 Lys Asn Lys Glu Phe Ile Ser Ala Val Ala Gln Val Lys Ala Phe Arg

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| | | | | | | |
|---|-------------------------|---------------------|---------|-----|--|-----|
| 545 | | 550 | | 555 | | 560 |
| Ser Leu Trp Pro | Ser Asp Ile Phe Gly | Ser Cys Glu Asp Asp | Pro Val | | | |
| | 565 | 570 | 575 | | | |
| Gln Thr Leu Ile His Ile Tyr Phe His His | Gln Thr Leu Gly Gln Thr | | | | | |
| | 580 | 585 | 590 | | | |
| Gly Ser Phe Ala Val Ile Gly Ser Asn Leu Asp Met | Ser Glu Ala Asn | | | | | |
| | 595 | 600 | 605 | | | |
| Tyr Lys Leu Met Glu Leu Asn Leu Glu Ile Arg | Glu Ser Leu Arg Met | | | | | |
| | 610 | 615 | 620 | | | |
| Val Gln Ser Tyr Gln Leu Leu Ala Gln Ala Lys Pro Met Gly Asn Met | | | | | | |
| | 625 | 630 | 635 | 640 | | |
| Val Ser Thr Gly Phe | | | | | | |
| | 645 | | | | | |

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